



HHS Public Access

Author manuscript

Child Youth Serv Rev. Author manuscript; available in PMC 2019 November 01.

Published in final edited form as:

Child Youth Serv Rev. 2018 November ; 94: 155–162. doi:10.1016/j.childyouth.2018.09.040.

A Short-Term Evaluation of a Hospital No Hit Zone Policy to Increase Bystander Intervention in Cases of Parent-to-Child Violence

Elizabeth T. Gershoff, PhD^a, Sarah A. Font, PhD^b, Catherine A. Taylor, PhD^c, Ann Budzak Garza, MD^d, Denyse Olson-Dorff, PsyD^d, and Rebecca H. Foster, PhD^e

^aDepartment of Human Development and Family Sciences, University of Texas at Austin, 108 E. Dean Keeton St., Stop A2702, Austin, Texas, 78712; liz.gershoff@austin.utexas.edu; sfont@prc.utexas.edu

^bDepartment of Sociology and Criminology, Pennsylvania State University, 505 Oswald Tower, University Park, PA 16802; saf252@psu.edu

^cSchool of Public Health & Tropical Medicine, Tulane University, 1440 Canal St., Suite 2210, New Orleans, Louisiana, 70112; ctaylor5@tulane.edu

^dDepartment of Pediatrics, Gunderson Health System, 1900 South Avenue, Mail stop: FBO-001, La Crosse, Wisconsin, 54601; AEBudzak@gundersenhealth.org; DGOlsond@gundersenhealth.org

^eSt. Louis Children's Hospital, One Children's Place, St. Louis, Missouri, 63110; and Washington University School of Medicine, Campus Box 9999, St. Louis, Missouri, 63130; Rebecca.Foster@bjc.org

Abstract

This study used a pre/post design to evaluate the implementation of a hospital-wide No Hit Zone (NHZ) bystander intervention around parent-to-child hitting. A total of 2,326 staff completed the pre-NHZ survey and received training about the NHZ policy; 623 staff completed the post-test survey 10 months later. A group of 225 parents participated in the pre-NHZ survey and a second group of 180 participated in the post-NHZ survey, also 10 months later. Compared to staff in the pre-NHZ group, staff in the post-NHZ group had more negative attitudes about spanking and more positive attitudes about intervention when parents hit children in the hospital. Few differences were found among the parent pre- and post-groups. This study demonstrated that NHZs are a

Corresponding Author: Elizabeth T. Gershoff, Department of Human Development and Family Sciences, University of Texas at Austin, 180 E. Dean Keeton St., Stop A2702, Austin, TX, 78712, email: liz.gershoff@austin.utexas.edu, fax (512) 475-8662, phone: (512) 471-4800.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Conflict of Interest Statement

The authors have no conflict of interest to declare related to the intervention described in this manuscript or to the research described herein.

feasible way to inform and train hospital staff in ways to intervene during incidents of parent-to-child hitting to promote a safe and healthy medical environment.

Keywords

No Hit Zone; spanking; violence prevention; bystander intervention; medical center; staff training

1. Introduction

Physical abuse of children leads to long-term physical and mental health problems (Francis, Nikulina, & Widom, 2015) and is illegal in all 50 U.S. states (Child Welfare Information Gateway, 2016a). Prevention of physical abuse is a key public health goal (Fortson, Klevens, Merrick, Gilbert, & Alexander, 2016). Use of even legal forms of parent-to-child hitting, often referred to as physical punishment or spanking, is a consistent predictor of whether parents will physically abuse their children (Gershoff & Grogan-Kaylor, 2016; Lee, Grogan-Kaylor, & Berger, 2014). (Note: the terms “parent-to-child hitting,” physical punishment, and spanking are used interchangeably throughout this paper.) Acknowledging this connection, the Centers for Disease Control and Prevention have identified decreasing parents’ use of physical punishment as a promising strategy for reducing physical abuse of children (Fortson et al., 2016).

Beyond its connection to physical abuse, there is ample evidence that physical punishment itself is harmful to children. Physical punishment has been linked consistently with a range of negative outcomes for children, including mental health problems, behavior problems, and lower cognitive ability (Gershoff & Grogan-Kaylor, 2016). A childhood history of spanking has been associated with the same mental and physical health outcomes in adulthood as other adverse childhood experiences such as physical or sexual abuse (Afifi et al., 2017). Reducing or eliminating physical punishment can thus reduce the risk for detrimental outcomes and reduce the risk that children experience physical abuse.

Parent-to-child hitting typically happens at home but sometimes occurs in public settings where bystanders are present. This paper presents an evaluation of a promising strategy for reducing parent-to-child hitting in public settings known as No Hit Zones (NHZs). NHZs take a bystander intervention approach to reducing violence against children by empowering professionals trusted by parents, namely medical center staff, to intervene and educate when they witness parent-to-child hitting.

1.1. Darley and Latané’s Theory of Bystander Behavior

Understanding why some bystanders behave prosocially and others do not has been the focus of research for several decades and has provided the foundation for a range of intervention efforts. Interest in promoting intervention by bystanders who witness some form of emergency such as violence being committed against someone, began with Darley and Latané’s (1968) classic study of individuals’ responses to strangers in distress. Based on a series of experimental studies, Latané and Darley (1970) argued that four conditions must be met in order for a bystander to actually engage in helping behavior, namely that the

bystander must notice something is happening, interpret the situation as an emergency, feel responsibility to intervene, and know how to intervene effectively, either directly or indirectly. They observed that some bystanders seemed to meet the first three conditions, and felt distress and concern for the victim, but did not take action because they did not know what to do. Thus, inaction may not equate with apathy but rather reflect a lack of adequate information about how to intervene.

Banyard and colleagues (2004) have condensed Latané & Darley's (1970) four steps into three criteria for successful bystander interventions around violence in relationships, namely: (1) change participants' norms about the importance of taking action when violence is witnessed, (2) ask participants to make a commitment to intervene, and (3) provide training so that participants develop necessary skills to intervene successfully. The NHZ intervention is designed in accordance with these three criteria.

1.2 Bystander Behavior in Cases of Child Abuse

Child abuse is often seen or heard by neighbors. In a statewide survey of adults in Kentucky, 9% were aware that some of their neighbors were abusing their children (Paquin & Ford, 1996). If this number is extrapolated across the United States, it implies that millions of adults are aware of child abuse and have the potential to intervene. Although bystander-based interventions have been used successfully to reduce dating violence, sexual violence, and stalking (Coker et al., 2016; Coker et al., 2017), only a handful of researchers have applied the theory of bystander behavior in order to understand what motivates bystander intervention in case of child abuse.

Davis (1991) interviewed 37 bystanders who had intervened when they witnessed a parent hitting a child in a public setting such as a store or a doctor's office. All directly confronted the parent perpetrator by approaching them and typically by speaking to them. In some cases parents protested that it was none of the bystanders' business. Only a few bystanders called authorities to report the parents' hitting behavior. The majority of the bystanders said their motivation was concern about the welfare of the children.

Consistent with Darley and Latané's theory, Christy and Voigt (1994) found that individuals who "had witnessed a child being abused or possibly being abused in public" (p. 826) and subsequently intervened said they did so because they felt a responsibility to stop the abuse and they were clear about how to intervene. The majority of those who did *not* intervene were just as upset as the interveners with the parents' behaviors, but they did not know what they should do.

An analysis of calls to report child abuse in the Netherlands (Hoefnagels & Zwikker, 2001) found that community members constituted the highest proportion of bystanders who reported abuse. All of the reporters of abuse noticed something concerning, such as something worrisome that the victim child said or seeing the abuse directly. Fully 60% were certain that abuse was occurring. This study further supports the application of Latané and Darley's theory in child protection cases.

1.3 Medical Centers as Ideal Settings to Reduce Parent-to-Child Hitting

There are several reasons that medical centers can be effective settings for the reduction of child abuse and parent-to-child hitting more generally. First, medical professionals are important influences on parents' attitudes about and use of physical punishment. When parents are asked whom they trust for advice on discipline, they rate doctors and medical professionals as highly trustworthy (Taylor, Moeller, Hamvas, & Rice, 2013), so much so that parents' perceptions of these professionals' approval or disapproval of physical punishment predict their own approval of physical punishment (Taylor, McKasson, Hoy, & DeJong, 2017).

A second reason is that parent-to-child hitting is common in medical settings. A survey of staff from two medical centers found that 50% of physicians, 25% of nurses, 27% of other direct-care staff, and 17% of non-direct care staff had witnessed at least one incident of parent-to-child hitting in the previous year (Font et al., 2016). However, many staff are unsure whether or how they should intervene. In that same study, two thirds of direct-care staff took action when they saw parent-to-child hitting, but only 38% of non-direct care staff did so (Font et al., 2016). These findings make clear that medical center staff are often bystanders of parent-to-child hitting but not all intervene.

Third, medical centers are important settings to reduce parent-to-child hitting because witnessing violence can be upsetting and stressful (Kennedy & Ceballo, 2014). Exposure to violence in a medical setting will be especially upsetting to any patients with a history of violence victimization and particularly to those who are in the hospital for injuries sustained from being a victim of violence. Because staff are tasked with promoting the health, healing, and safety of all patients, they have an obligation to prevent all forms of potential violence exposure by their patients.

A final reason for intervention in medical settings is that intervening in cases of parent-to-child hitting is increasingly seen as a professional and ethical obligation for medical staff. Several major medical professional organizations have urged their members to prevent parent-to-child hitting, including spanking, in all settings. Specifically, the American Academy of Pediatrics (1998, 2014), the Canadian Paediatric Society (2016), the National Association of Pediatric Nurse Practitioners (2011), and the American Academy of Child and Adolescent Psychiatry (2012) have each advised their members to discourage parents from spanking and to promote disciplinary alternatives. All medical staff are also mandated reporters of suspected child abuse or neglect (Child Welfare Information Gateway, 2016b). A bystander intervention for parent-to-child hitting takes this responsibility one step further by asking staff to prevent abuse if they witness a situation likely to escalate and to capitalize on parents' trust by taking the opportunity to educate them about the harms of hitting children and what they can do instead.

There is thus a need to educate medical center staff about the harms of physical punishment, the circumstances in which they should intervene, and the ways in which they can intervene effectively. The No Hit Zone initiative was created to accomplish these goals.

1.4 The No Hit Zone Bystander Intervention

A No Hit Zone (NHZ) is a universal policy instituted in a setting involving families, such as a medical center, that establishes zero tolerance of hitting of any kind, including parents hitting their children for any reason. The main goal of NHZs is to promote a safe and healthy environment for patients, families, and staff within the medical center (Frazier, Liu, & Dauk, 2014). A secondary goal is to encourage parents to use non-violent forms of discipline instead of hitting (see: www.thisisanohitzzone.org). Cismaru (2013) recommends that bystander interventions for child abuse communicate clearly that no child should be hit, that discipline does not need to include physical punishment, that bystanders should always intervene, and that there are clear and effective ways to intervene. An NHZ is thus an example of a bystander-based approach to child abuse prevention in that its goals are to change norms about whether to intervene and to inform potential bystanders about how best to intervene (Adhia, Potter, Stapleton, Zuckerman, Phan, & Bair-Merritt, 2017).

The NHZ intervention is designed to meet the three goals of bystander interventions outlined by Banyard et al. (2004). Meeting the first goal of changing staff members' norms about the importance of taking action requires both educating staff about the risks of harm to children posed by all forms of hitting, including spanking, and about the important role medical staff can play in preventing violence against children. The second goal of asking participants to make a commitment to intervene is met by educating staff about: 1) the medical center's NHZ policy that any parent-to-child hitting will not be tolerated, and 2) their obligation to intervene if they see such hitting. The third goal, namely to help participants develop necessary skills to intervene successfully, is met through providing an online or in-person training that reviews potential scenarios and both verbal and behavioral steps that staff can take to prevent or respond to parent-to-child hitting.

1.5. The Current Study

The aim of the current study was to evaluate a universal implementation of a NHZ in a large medical center. Although there has been one anecdotal account of hospital staff support for a NHZ initiative (Frazier et al., 2014), this is the first systematic evaluation of a NHZ.

The NHZ that is the focus of this study was implemented by Gundersen Health System in La Crosse, Wisconsin, in April 2014. Parents' use of physical punishment is legal in the state of Wisconsin. The region served by the Gundersen Health System is primarily White (94%), without a college education (78%), and heavily rural (three of the six counties in the region are 86% or more rural; Great Rivers United Way, 2018). The implementation of the NHZ included an institutional policy change, training that was made available to all medical center staff, and the development and distribution of educational materials. All staff were encouraged to participate in the NHZ training and were sent reminders via email and messages on their computer home-screens. The training consisted of a brief video explaining the rationale for the NHZ and depicting what staff behavior changes were required under the new policy. Training also included scripted examples of how to intervene if parent-to-child hitting was heard or observed in the hospital setting and how to complete mandated reporting of child maltreatment. To communicate the NHZ policy to patients, families, and visitors, posters explaining the NHZ and pamphlets providing recommendations on methods

of effective and positive discipline that can be used as replacements for hitting children were placed in high traffic areas throughout the medical center and in the pediatric clinic waiting and examination rooms.

For the purposes of evaluation, the medical center required that all staff and parent responses to surveys be anonymous. This meant that instead of a pre-/post- analysis of within-individual change, the evaluation compared survey responses from groups of staff and parents from before the NHZ was implemented to groups of staff and parents surveyed after the NHZ had been in place for several months. The first hypothesis was that, compared with staff surveyed pre-NHZ, staff surveyed post-NHZ would be more knowledgeable about how to intervene, be more comfortable doing so, be less supportive of spanking, and perceive their colleagues as less supportive of spanking. The second hypothesis was that there would be some impact on support for and use of spanking among parents (who visited the medical center), although the effects were expected to be smaller because, unlike staff, parents do not participate in NHZ training and not all are exposed to NHZ educational materials. Because past research has found that women, younger people, and parents were more likely to report suspected abuse (Hoefnagels & Zwikker, 2001; Paquin & Ford, 1996), these variables were included as predictors in the main models. Support for intervention in parent-to-child hitting was hypothesized to be higher among more highly educated staff and among those responsible for direct care of patients in the medical center.

2. Methods

All study procedures were approved by the institutional review boards of the medical center and of the University of Texas at Austin.

2.1. Participants

2.1.1. Staff—Of the 6,600 staff at the medical center, 3,000 staff initiated the NHZ training and thus were eligible for the pre-NHZ survey. Of these eligible staff members, 2,326 participated in the voluntary pre-NHZ survey before beginning the training (86% response rate), and 1,725 staff agreed to participate in the comprehension check survey (67% of those who completed the training). A total of 623 staff completed the post-NHZ survey. Nearly half of the staff who completed the post-NHZ survey ($n = 346$; 49%) reported that they had also completed the pre-NHZ survey. Demographic characteristics of the staff who completed the pre- or post-NHZ surveys are presented in Table 1, along with any significant differences between the groups. Both pre- and post-NHZ groups were primarily female, White, and had children. The post-NHZ group was older and more likely to have a professional degree than the pre-NHZ group. In the pre- and post-NHZ groups, roughly equal percentages of staff were involved in the direct care of patients (54.5% and 54.4%, respectively); of those, nurses were the largest percentage (52.3% and 48.8%) followed by counseling professions (e.g., therapists, social workers, or child life specialists; 44.2% and 45.7%), and only a small percentage were physicians (3.5% and 5.5%). The non-direct care staff at each wave (45.5% and 45.6%) held positions such as environmental services technicians, clinic support staff, medical records staff, or lab technicians. To account for

such differences between the pre- and post-test groups, demographic variables were included in the main regression models.

2.1.2. Parents—A total of 225 parents participated at the pre-test and 180 at the post-test, which occurred 10 months after the pre-test. Only 9 parents in the post-test group (6%) declared that they remembered filling out a similar survey several months earlier; thus, the majority of the parents in the pre- and post-test survey groups were unique. Demographic characteristics of the parents who completed the pre- or post-NHZ surveys are presented in Table 1, along with any significant differences between the groups. Parent survey participants at both waves were mostly female and White. Parents who completed the post-NHZ survey were older, less likely to have a terminal college degree, and more likely to have a professional degree than parents in the pre-NHZ survey.

2.2. Study Procedure

2.2.1. Staff surveys—Three surveys were administered to medical center staff. First, all staff who initiated the NHZ training were invited to participate in an anonymous survey just before the training that assessed their attitudes about parent-to-child hitting generally and in the medical center setting in particular. As an incentive, staff were invited to enter their email address (which was not linked to their data so that the survey responses remained anonymous) into a drawing for a \$100 [Amazon.com](https://www.amazon.com) gift card. Of those who participated in the pre-NHZ survey, 93% completed both the survey and training online and 7% completed paper copies of the survey and then viewed an in-person screening of the training video. Staff participants were instructed that by clicking forward from (or, for paper copies, turning past) the introductory page, they indicated their consent. Second, immediately after completing the online training, staff were asked to complete a brief anonymous survey as a comprehension check of the presented material. Third, an anonymous post-NHZ survey of staff was conducted 10 months after the NHZ went into effect. All staff were invited to participate, regardless of whether they had completed the training. Staff received emails and home-screen reminders to complete the post-NHZ survey and a drawing for a \$100 gift card was provided as an incentive.

2.2.2. Parent surveys—Parents at the medical center's outpatient pediatric and behavioral health clinics were surveyed both before and after the NHZ was implemented. For the pre-test survey, on half-days over three weeks before the NHZ policy went into effect, adults with children in these clinics were approached by trained undergraduate research assistants under the supervision of a pediatric psychologist and asked if they were a parent, over 18, and willing to complete an anonymous survey. Parents who agreed were invited to take a paper version of the survey; to ensure anonymity, they were instructed to put the completed survey in a box at the reception desk. The same procedure was repeated for the post-test survey, which occurred 10 months after the NHZ policy was instituted. At both waves, parents were invited to enter their email address into a drawing for a \$100 [Amazon.com](https://www.amazon.com) gift card.

2.3. Measures

2.3.1. Staff comprehension check on NHZ training—Immediately after completing the NHZ training, staff who agreed to participate in the comprehension check rated 8 statements on a scale from 1 (strongly disagree) to 5 (strongly agree).

2.3.2. Staff pre-/post-NHZ measures—At both pre- and post-NHZ surveys, staff completed four sets of questions on the new NHZ policy, access to information, and attitudes. All items had response options on a scale from 1 (strongly disagree) to 5 (strongly agree). First, *positive attitudes toward spanking* were measured using 5 items taken from the Attitudes Toward Spanking scale (Holden, Coleman, & Schmidt, 1995) (e.g., “I believe it is the parents’ right to spank their children if they think it is necessary.”) and 4 additional items that were created for the current study (e.g., “There are no negative effects of spanking or physical punishment.”; full scale $\alpha=.90$). Second, staff answered 5 items on their *positive attitudes toward medical staff intervention when parents hit children* (e.g., “Physicians, nurses, and other medical center staff have an obligation to intervene when children are being spanked or hit in the medical center buildings,” $a=.80$). Third, four items from the Attitudes Toward Spanking scale were edited so that each began with the phrase, “My co-workers think that...” in order to tap *perceptions of coworkers’ positive attitudes toward spanking* ($\alpha=.89$). Fourth, staff were asked five items on medical center policy and access to information on discipline (see Table 3, items 5–9). Finally, staff also were asked, if they had seen a parent hitting a child in the past three months and, if so, whether or not they had taken any action.

2.3.3. Staff attitudes about the NHZ intervention—At the post-NHZ survey only, staff were asked to rate their agreement with 10 items specifically about the NHZ, such as “I believe the No Hit Zone initiative is a good idea for our medical center.” All items are presented in Table 2. Staff were invited to answer the following open-ended question: “Please tell us in the space below any ways the NHZ has made your job easier or harder.”

2.3.4. Parent pre-/post-NHZ measures—At both waves, parents completed the same 9-item measure about *positive attitudes toward spanking* as did the staff. They also completed the same 5-item measure tapping *positive attitudes toward medical staff intervention when parents hit children*. Parents were asked about their *perception of their pediatrician’s attitudes toward spanking* with four of the statements from the Attitudes Toward Spanking scale. Parents were asked if they had read any NHZ materials in the medical center and, if so, whether the messages had changed how they think about discipline; to indicate the latter, they checked any of 10 statements (see below). Parents also responded to the question, “How frequently do you spank, slap, smack, pop, or hit your child when he/she misbehaves?” using a 5-point scale (1=never, 2=< once per month, 3=once per month, 4=once per week, 5=daily).

2.3.5. Parent attitudes about the NHZ intervention—In the post-NHZ survey, parents were asked if they had seen or read any NHZ flyers, posters, or brochures while in the clinics or medical center. They were not provided with examples but rather were asked to recall if they had seen them. All parents completed the survey regardless of whether they had

seen the NHZ materials, but they were told to skip these questions if they had not seen any NHZ materials. If they had, they were asked whether the NHZ materials had changed their attitudes about spanking generally and about medical staff intervention when parents spank. All 10 items are presented in Table 4.

3. Results

3.1. Training Comprehension

The vast majority of staff agreed that the policy was clear (95.6% agreed or strongly agreed) and that they understood their obligations under the policy (93.3%). Most staff reported that they had been provided with strategies they could use to intervene if someone was acting against the NHZ policy (94.0%). Staff largely agreed that the NHZ intervention is a “good idea” or “will have a positive impact” (87.9% and 87.1%, respectively).

3.2. Staff Attitudes about the NHZ

The average post-NHZ responses of staff who provide direct care to patients ($n = 318$) was compared with the responses of staff who do not provide such care ($n = 266$). Staff in both groups agreed (at or rounded to mean = 4.0) that the NHZ is “a good idea for our medical center” and that they understood the rationale and goals behind the NHZ and what behaviors require intervention (see Table 2). Both groups also believed that the NHZ “has a positive impact on the families we serve” and believed in the goals of the NHZ. Both groups disagreed (mean = 2.5) with statements that the NHZ “goes too far in intervening in families’ lives” and that the policy has been difficult to implement. Differences were found between the direct care and non-direct care staff groups on two items; staff who do not engage in direct care were slightly more likely than direct care staff to say the NHZ goes against their personal values and that it “does more harm than good” (see Table 2).

A total of 50 staff provided their thoughts on the open-ended question regarding whether the NHZ makes their jobs easier or harder. Of these, 33 (66%) were supportive of the policy. Sample statements were: “Having a clear-cut mandate makes intervention more likely to occur;” “It gives me the tools I need to defuse a situation and hopefully change future behaviors;” and “Though it is more difficult to intervene than ignore, the NHZ has made it easier to intervene by letting the parent know that this is an organizational policy that I am carrying out rather than my own values.” Only six responses (12%) were negative; all asserted beliefs that parents have the right to spank their children and the medical center should not get involved (e.g., “The medical center has no business telling parents either way how to raise or discipline their children.”). The remaining open-ended responses (22%) were ambivalent (e.g., “I believe in the NHZ; I just don’t know if I want to intervene.”).

3.3. Staff Change in Attitudes and Behavioral Intentions Pre-/Post-NHZ

In order to determine whether there was change in attitudes and behavioral intentions from before to after the NHZ, the responses of the entire sample (both pre-NHZ and post-NHZ respondents) were combined in a series of regressions. Each regression included an indicator variable for whether the respondent was surveyed before (0) or after (1) the intervention. Thus, significant negative coefficients for this variable indicate the post-NHZ respondents

reported lower values on that measure than did pre-NHZ respondents, whereas positive values indicate that post-NHZ respondents reported higher values. Within this quasi-experimental framework, this variable is the best indication that the intervention is associated with changes in attitudes and behavioral intentions among the medical center staff.

Table 3 presents the results from separate regressions predicting four outcomes (staff support for spanking, support for medical staff intervention when parents hit their children, perceived coworker support for spanking, and knowledge about the NHZ policy and how to intervene). As seen in the first line of the table, average support for spanking was not different pre- and post-NHZ. However, whether respondents were surveyed before or after the intervention did predict differences in the other three outcomes. After the NHZ intervention, staff reported stronger support for intervening when parents hit children ($B = .25$, $SE = .04$, $p < .001$) and more knowledge about the NHZ policy and how to intervene when parents hit children ($B = .70$, $SE = .04$, $p < .001$). Staff after the NHZ also reported that their coworkers had less support for spanking than did staff before the NHZ was in place ($B = -.09$, $SE = .05$, $p < .05$).

Of the 221 staff in the pre-NHZ group (9.5%) who reported that they had seen parent-to-child hitting in the previous 3 months, 118 (53%) said that they had intervened. Reports of seeing parent-to-child hitting in the medical center were lower in the post-NHZ group: only 25 staff (4%) reported seeing it in the previous 10 months. Of these 25, 68% reported that they intervened, which was significantly higher than the pre-NHZ group ($\chi^2 = 4.11$, $p < .05$).

3.4. Parent Attitudes about the NHZ

Forty percent ($n = 70$) of the parents who completed the post-NHZ survey reported having seen the NHZ materials. These parents were asked whether the NHZ materials changed their thinking about discipline (see Table 4). A fifth of these parents reported that the NHZ had changed their thoughts about discipline and that they now thought spanking a child is harmful. More than a quarter of parents (28.6%) agreed that they now think there are better ways to discipline than spanking and that medical center staff should intervene if they see parents spanking their children (25.7%). Nearly a quarter (24%) said they were more likely to seek help with discipline from medical professionals after reading the NHZ materials.

The parents who reported that they had spanked their children were even more likely to say that their attitudes about discipline had changed after reading NHZ materials (36.4%, compared to 20% among non-spankers), to now think spanking is harmful (36.4% vs. 21% among non-spankers), to now think there are better ways to discipline than spanking (50% vs 29% among non-spankers), and to think medical staff should intervene when parents hit children (45.5% vs 25.7% of non-spankers).

3.5. Parent Change in Attitudes and Behavioral Intentions Pre-/Post-NHZ

There were no differences between the pre- and post-NHZ parent groups in support for or use of spanking, perhaps because the pre-NHZ parents already reported low support for spanking on the 1 to 5 scale ($mean = 2.22$ ($SD=0.85$), equivalent to “less than once per

month”) and low use of spanking (pretest spanking $mean = 1.57$ ($SD=0.93$), midway between “never” and “less than once per month”). The one significant change observed for parents was a significant decrease in whether they thought their pediatricians had positive attitudes about spanking ($means = 2.09$ ($SD=0.91$) vs. 1.89 ($SD=0.98$), $p < .05$).

4. Discussion

This study reports results from a first-of-its-kind evaluation of an NHZ intervention in a medical center. Support was found for the feasibility of implementing NHZs in medical centers. Importantly, 96% of the medical center staff reported that they understood the NHZ policy after the training, and 94% said that they now had strategies to intervene if they witnessed incidents of hitting. Compared with staff surveyed before being trained in the NHZ, staff surveyed 10 months post-NHZ had less support for spanking and were more likely to agree that their coworkers also had less support for spanking. These findings are important because medical center staff are more likely to intervene in violent situations if they perceive that there are institutional norms supporting intervention and that their peers support intervention (Brown & Messman-Moore, 2010; Hoxmeier, Flay, & Acock, 2016). The current study adds to previous research demonstrating that brief education about the harms linked to spanking can reduce support for spanking and increase the likelihood of intervention among pediatric residents and medical students (Burkhart, Knox, & Hunter, 2016; Scholer, Brokish, Mukherjee, & Gigante, 2008) and nurses (Hornor et al., 2015).

In previously published results from the pre-NHZ survey (Font et al., 2016), staff reported a high prevalence of witnessing parent-to-child hitting in the medical center, demonstrating a clear need for an institutional policy on intervening in such situations. In addition, staff reported pre-NHZ that the most common reason they did not intervene when parents hit children in the medical center was that they were not sure what to say or do (Font et al., 2016). Staff in the post-NHZ group were less likely to report seeing parent-to-child hitting (68% vs 53%), but it is unclear whether that was because the NHZ was successful in reducing parent-to-child hitting or that it had the unintended effect of reducing staff attentiveness to it. However, the more important finding is that when staff saw parent-to-child hitting, the post-NHZ group intervened more often than the pre-NHZ group, as originally hypothesized.

Staff attitudes about the NHZ were assessed directly to ensure that they understood the goals of the NHZ and accepted their responsibilities under it. Staff consistently agreed that the NHZ was a good idea, that they appreciated the goals of the NHZ, and that they understood they now had an obligation under this new policy to intervene when they witness parent-to-child hitting. Non-direct care staff were slightly more likely than direct care staff to say the NHZ goes against their personal values and to think the NHZ would do more harm than good. This finding suggests that non-direct care staff may need more education about the research on the harms of spanking and the purpose of the NHZ. It bears noting, however, that the averages on all NHZ items for both direct-care and non-direct care staff groups indicated support for the policy.

The NHZ was not linked with changes in parents' attitudes about or use of spanking. A major reason for this lack of change is that parents in the pre-NHZ group already had relatively low support for spanking and infrequent use of spanking. One observed change was a reduction in perceptions that their children's pediatricians support spanking. This finding is encouraging because parents rely on pediatricians and medical staff for parenting advice, and these changes may lead to later reductions in their own support for and use of spanking (Taylor, et al., 2013; 2017). Even more encouraging is the fact that a quarter to a third of parents who read the NHZ materials said the materials led them to now think that spanking is potentially harmful, to try other methods of discipline, to think staff should intervene if they see hitting, and to seek out medical professionals for parenting advice. Taken together, these findings suggest that families welcome and benefit from the NHZ. The fact that only 39% of the parents in the post-NHZ survey read the NHZ materials in the medical center suggests more needs to be done to publicize the NHZ and make the materials visible and available to all families and visitors.

The NHZ intervention was thus successful at achieving the three goals of a bystander training intervention as proposed by Banyard and colleagues (2004) based on the theory of bystander intervention proposed by Darley & Latané (1968; Latané & Darley, 1970). Staff after the NHZ were more aware of the potential harms of parent-to-child hitting and of their obligation to intervene if they see it, and felt that they had strategies they could use to intervene. Together, these achievements mean that the groundwork has been laid for staff to be effective bystander interveners if they should see parent-to-child hitting in the future.

4.1. Study Limitations

The study had a few limitations. The first is the use of a simple pre-/post-test design with separate groups of respondents. As a result of the universal roll-out of the NHZ intervention, the gold-standard randomized controlled trial (RCT) design could not be used. Additionally, because the hospital required that all responses be confidential, respondents could not be followed over time to examine intra-individual change. The current design thus has external validity, in that it evaluated the full-scale implementation of an intervention in real-world conditions; however, the lack of randomization and the inability to assess intra-individual change preclude a definitive conclusion that the NHZ changed staff attitudes and behaviors. Ideally, a future NHZ evaluation study will use a group RCT design with multiple hospitals willing to be randomized to either NHZ or control conditions, with the latter hospitals requiring delayed NHZ implementation. As more medical centers consider implementing NHZs, this design may be feasible in the future. The findings provide preliminary support for the role NHZs can play in changing institutional culture around parent-to-child hitting but do not offer causal evidence.

A second limitation is the relatively small size of the post-NHZ staff group; although there was ample statistical power for the analyses, the response rate for the staff post-NHZ survey was low and thus the results are not representative of all medical center staff.

Third, the post-test survey relied on staff and parent self-reports rather than observations of behavior change. Future evaluations of NHZs would be strengthened by gathering on-site

observational data of the incidence of parent-to-child hitting as well as staff responses to these incidents.

Fourth, there is a possibility that staff and parent post-NHZ responses were affected by social desirability; this seems less likely for the parent group given the lack of differences in general attitudes about spanking across the two waves.

Finally, the sample had limited racial and gender diversity among both staff and parents; future studies with more diverse staff and client populations are needed.

5. Conclusion

The findings of this study suggest that NHZs are a promising means of changing medical staff attitudes and behaviors around parent-to-child hitting at medical centers. Future research studies using RCT designs are needed to more fully evaluate NHZs, but this study has demonstrated that NHZs have considerable promise for changing attitudes about and increasing intervention around parent-to-child hitting. Future research on NHZs should be extended to determining whether parents exposed to the NHZ use less physical punishment in the long-term. The NHZ intervention approach is consistent with the Centers for Disease Control and Prevention's call for educational interventions to reduce positive attitudes about and use of all forms of physical punishment as a strategy to prevent child physical abuse (Fortson et al., 2016).

There are some programmatic issues that institutions considering NHZs might consider. Foremost is the need to provide positive reinforcement for bystanders who intervene to both reward them for their behavior and to encourage them to intervene again in the future. Such reinforcement can take the form of direct praise in the moment or written acknowledgement after the fact. To sustain their effectiveness, medical centers with NHZs might consider ways of reinforcing and praising staff intervention behaviors.

Institutions interested in implementing an NHZ should also attend to the emotional needs of the bystander after an intervention event. Witnessing a child being hurt is upsetting. In a study of individuals who intervened when parents hit children in public, all felt their behavior was justified but some experienced guilt at thinking there must have been a better way to intervene and others regretted that they had not done more (Davis, 1991). These bystanders also shared a fear that parents may have been angered or embarrassed by the intervention and would take their frustration out on their children later (Davis, 1991). It would thus be important for NHZ administrators to anticipate some of these reactions in staff who do intervene and to provide support, and to encourage staff to engage in self-care when necessary.

Although NHZs were designed for and first implemented in medical settings (Frazier et al., 2014), they could be implemented in any setting in which parents and children interact, such as schools, libraries, grocery stores, and playgrounds. One region of the country that has implanted NHZs beyond medical settings is the city and surrounding areas of Madison, WI. The University of Wisconsin American Family Children's Hospital in Madison (<https://www.uwhealthkids.org/child-protection/hitting-hurts-parents-kids-and-effective-discipline/>)

49204), the Dane County District Attorney's office in Madison, (<https://da.countyofdane.com/nohit.aspx>), and all city properties in the nearby city of Stoughton, WI, including schools, playgrounds, and public libraries (<https://www.stoughtonpubliclibrary.org/no-hit-zone>), have each made their facilities NHZs. The results of the current study suggest these efforts are important steps toward changing community norms about hitting children.

Despite mounting research findings and statements from the American Academy of Pediatrics (1998, 2014) and other professional organizations that all parent-to-child hitting, including spanking, is harmful to children, parents across the country continue to spank their children in their homes as well as in medical settings. This study has demonstrated that the implementation of a NHZ is a feasible and potentially effective way to inform medical center staff and parent visitors about harms linked to spanking and to train staff in ways to intervene during incidents of hitting in order to promote a safe and healthy medical environment for patients, families, and staff.

Acknowledgments

Funding: Data analysis and manuscript preparation were supported by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (T32 HD007081 & P2CHD042849).

References

- Adhia A, Potter SJ, Stapleton J, Zuckerman B, Phan N, & Bair-Merritt M (2017). Encouraging bystanders to promote positive parenting and prevent child maltreatment in retail settings: results of an exploratory qualitative study. *Journal of Aggression, Maltreatment & Trauma*, 26, 276–296. doi: 10.1080/10926771.2016.1264527
- Afifi TO, Ford D, Gershoff ET, Merrick M, Grogan-Kaylor A, Ports KA, ... Bennett RP (2017). Spanking and adult mental health impairment: The case for the designation of spanking as an Adverse Childhood Experience. *Child Abuse Neglect*, 71, 24–31. doi: 10.1016/j.chiabu.2017.01.014 [PubMed: 28126359]
- American Academy of Child and Adolescent Psychiatry. (2012, July 30). Policy statement on corporal punishment. Retrieved from: http://www.aacap.org/aacap/policy_statements/2012/Policy_Statement_on_Corporal_Punishment.aspx
- American Academy of Pediatrics, Committee on Psychosocial Aspects of Child and Family Health. (1998). Guidance for effective discipline. *Pediatrics*, 101(2, Pt. 1), 723–728. doi: 10.1542/peds.101.4.723 [PubMed: 9521967]
- American Academy of Pediatrics. (2014). AAP publications reaffirmed or retired. *Pediatrics*, 134, e1520. doi: 10.1542/peds.2014-2679
- Banyard VL, Plante EG, & Moynihan MM (2004). Bystander education: Bringing a broader community perspective to sexual violence prevention. *Journal of Community Psychology*, 32, 61–79. doi:10.1002/jcop.10078
- Brown AL, & Messman-Moore TL (2010). Personal and perceived peer attitudes supporting sexual aggression as predictors of male college students' willingness to intervene against sexual aggression. *Journal of Interpersonal Violence*, 25, 503–517. doi:10.1177/0886260509334400 [PubMed: 19401602]
- Burkhart K, Knox M, & Hunter K (2016). Changing health care professionals' attitudes toward spanking. *Clinical Pediatrics*, 55, 1005–1011. doi:10.1177/000992281666673 [PubMed: 27582490]
- Canadian Paediatric Society. (2016). Effective discipline for children. Retrieved from: www.cps.ca/en/documents/position/discipline-for-children

- Child Welfare Information Gateway. (2016a). Definitions of child abuse and neglect. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau Retrieved from: <https://www.childwelfare.gov/topics/systemwide/laws-policies/statutes/define/>
- Child Welfare Information Gateway. (2016b). Mandatory reporters of child abuse and neglect. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau Retrieved from: <https://www.childwelfare.gov/pubpdfs/manda.pdf>
- Christy CA, & Voigt H (1994). Bystander responses to public episodes of child abuse. *Journal of Applied Social Psychology*, 24, 824–847. doi: 10.1111/j.1559-1816.1994.tb00614.x
- Cismaru M (2013). Encouraging bystanders to help in stopping violence against children. *International Journal of Nonprofit and Voluntary Sector Marketing*, 18, 7–17. doi:10.1002/nvsm.1451
- Coker AL, Bush HM, Cook-Craig PG, DeGue SA, Clear ER, Brancato CJ, Fisher BS, & Recktenwald EA (2017). RCT testing bystander effectiveness to reduce violence. *American Journal of Preventive Medicine*, 52, 566–578. doi:10.1016/j.amepre.2017.01.020 [PubMed: 28279546]
- Coker AL, Bush HM, Fisher BS, Swan SC, Williams CM, Clear ER, & DeGue S (2016). Multi-college bystander intervention evaluation for violence prevention. *American Journal of Preventive Medicine*, 50, 295–302. doi:10.1016/j.amepre.2015.08.034 [PubMed: 26541099]
- Darley JM, & Latané B (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8(4, Pt.1), 377–383. 10.1037/h0025589 [PubMed: 5645600]
- Davis PW (1991). Stranger intervention into child punishment in public places. *Social Problems*, 38, 227–246. doi:10.2307/800531
- Font SA, Gershoff ET, Taylor CA, Terreros A, Nielsen-Parker M, Spector L, Foster RH, Garza AB, & Olson-Dorff D (2016). Staff intervention attitudes and behaviors when parents hit children in a hospital setting. *Journal of Developmental and Behavioral Pediatrics*, 37, 730–736. doi: 10.1097/DBP.0000000000000343 [PubMed: 27802257]
- Fortson BL, Klevens J, Merrick MT, Gilbert LK, & Alexander SP (2016). Preventing child abuse and neglect: A technical package for policy, norm, and programmatic activities. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention Retrieved from: <http://www.cdc.gov/violenceprevention/childmaltreatment/index.html>
- Francis MM, Nikulina V, & Widom CS (2015). A prospective examination of the mechanisms linking childhood physical abuse to body mass index in adulthood. *Child Maltreatment*, 30, 203–213. doi: 10.1177/1077559514568892
- Frazier ER, Liu GC, & Dauk KL (2014). Creating a safe place for pediatric care: A no hit zone. *Hospital Pediatrics*, 4, 247–250. doi:10.1542/hpeds.2013-0106 [PubMed: 24986995]
- Gershoff ET, & Grogan-Kaylor A (2016). Spanking and child outcomes: Old controversies and new meta-analyses. *Journal of Family Psychology*, 30, 453–469. doi: 10.1037/fam0000191 [PubMed: 27055181]
- Great Rivers United Way. (2018). COMPASS Now 2018. Retrieved from: https://www.greatriversunitedway.org/wp-content/uploads/2012/07/compass-now-2018_rev091718.pdf
- Hoefnagels C, & Zwikker M (2006). The bystander dilemma and child abuse: Extending the Latane and Darley model to domestic violence. *Journal of Applied Social Psychology*, 31, 1158–1183. doi:10.1111/j.1559-1816.2001.tb02668.x
- Holden GW, Coleman SM, & Schmidt KL (1995). Why 3-year-old children get spanked: Parent and child determinants as reported by college-educated mothers. *Merrill-Palmer Quarterly*, 41, 431–452.
- Honor G, Bretl D, Chapman E, Chiocca E, Donnell C, Doughty K, ... & Quinones SG (2015). Corporal punishment: Evaluation of an intervention PNPs. *Journal of Pediatric Health Care*, 29, 526–535. doi:10.1016/j.pedhc.2015.04.016 [PubMed: 25977165]
- Hoxmeier JC, Flay BR, & Acock AC (2016). Control, norms, and attitudes differences between students who do and do not intervene as bystanders to sexual assault. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260515625503.
- Kennedy TM, & Ceballo R (2014). Who, what, when, and where? Toward a dimensional conceptualization of community violence exposure. *Review of General Psychology*, 18(2), 69–81. 10.1037/gpr0000005

- Latané B, & Darley JM (1970). *The unresponsive bystander: Why doesn't he help?* New York: Meredith.
- Lee SJ, Grogan-Kaylor A, & Berger LM (2014). Parental spanking of 1-year-old children and subsequent protective services involvement. *Child Abuse & Neglect*, 38, 875–883. doi:10.1016/j.chiabu.2014.01.018 [PubMed: 24602690]
- National Association of Pediatric Nurse Practitioners. (2011). NAPNAP Position Statement on Corporal Punishment. *Journal of Pediatric Health Care*, 25, e31–e32. Retrieved from: [http://www.jpedhc.org/article/S0891-5245\(11\)00228-8/pdf](http://www.jpedhc.org/article/S0891-5245(11)00228-8/pdf) [PubMed: 22128456]
- Paquin GW, & Ford J (1996). A statewide study of neighbors' knowledge of and reactions to physical child abuse. *Journal of Sociology and Social Welfare*, 23, 147–155.
- Scholer SJ, Brokish PA, Mukherjee AB, & Gigante J (2008). A violence-prevention program helps teach medical students and pediatric residents about childhood aggression. *Clinical Pediatrics*, 47, 891–900. doi:10.1177/0009922808319965 [PubMed: 18626103]
- Taylor CA, McKasson S, Hoy G, & DeJong W (2017). Parents' primary professional sources of parenting advice moderate predictors of parental attitudes toward corporal punishment. *Journal of Child and Family Studies*, 26, 652–663. doi:10.1007/s10826-016-0586-3 [PubMed: 28529440]
- Taylor CA, Moeller W, Hamvas L, & Rice JC (2013). Parents' professional sources of advice regarding child discipline and their use of corporal punishment. *Clinical Pediatrics*, 52, 147–15. doi:10.1177/0009922812465944 [PubMed: 23185082]

Highlights

- Medical center staff support the implementation of a No Hit Zone (NHZ).
- Post-NHZ, staff are more supportive of intervening when parents hit children.
- Post-NHZ, staff have more knowledge about how to intervene.
- NHZ was not associated with changes in parents' support for spanking.
- Parents cited NHZ materials as a reason they became less supportive of spanking.

Table 1.

Demographic characteristics of the medical center staff and parents of children at the pediatric clinic surveyed just before and 10 months after the NHZ intervention was implemented.

	Medical Center Staff		Parents in Pediatric Clinics	
	Pre-NHZ group (<i>n</i> = 2326)	Post-NHZ group (<i>n</i> = 623)	Pre-NHZ group (<i>n</i> = 225)	Post-NHZ group (<i>n</i> = 180)
Female	84.7	86.8	76.1	81.0
White	83.5	84.2	86.7	88.9
Parent	65.4	66.2	100.0	100.0
Age				
Age 18–35	31.7	23.0***	48.1	36.1*
Age 36–55	48.6	50.2	50.0	60.1*
Age 55+	19.8	26.8***	1.9	3.3
Education				
No college degree	36.6	30.1**	52.1	55.0
College graduate	48.4	47.5	37.8	28.3*
Professional degree	15.0	22.4***	10.0	16.7*
Direct care position in medical center	54.5	54.4	--	--

Note: Asterisks indicate significant pre/post group differences using *t* tests. Comparison for White includes Black or African American, Hispanic or Latino, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.

* $p < .05$;

** $p < .01$;

*** $p < .001$.

Table 2.

Medical center staff attitudes about the NHZ by direct vs. non-direct care staff position.

	Direct care (n = 318)	Non-direct care (n = 266)	<i>p</i>
I believe the No Hit Zone initiative is a good idea for our medical center.	4.18 (0.93)	4.09 (0.97)	0.28
I think the No Hit Zone initiative goes too far in intervening in families' lives.	2.19 (108)	2.31 (106)	0.18
I understand the rationale for why the medical center needs a No Hit Zone policy.	4.20 (0.87)	4.16 (0.85)	0.63
The goals for the No Hit Zone are clear to me.	4.17 (0.88)	4.11 (0.84)	0.39
I am clear about what behaviors require intervention under the No Hit Zone policy if I see them.	4.06 (0.91)	3.96 (0.84)	0.17
I believe the No Hit Zone has a positive impact on the families we serve.	3.97 (0.88)	3.87 (0.90)	0.18
The No Hit Zone initiative goes against my own personal values.	1.97 (0.96)	2.17 (106)	0.02
I think that the No Hit Zone does more harm than good.	1.91 (0.91)	2.08 (0.99)	0.03
The No Hit Zone policy has been difficult for me to implement.	2.30 (0.94)	2.43 (0.93)	0.09
I believe in the goals of the No Hit Zone for our medical center.	4.10 (0.89)	4.06 (0.88)	0.58

Note: Means are shown with standard deviations in parentheses. Scale for individual items ranges from 1 (strongly disagree) to 5 (strongly agree).

Table 3.

Results from regressions predicting staff spanking- and NHZ-related attitudes from the NHZ implementation and demographic covariates.

	Support for spanking	Support for medical staff intervention when parents hit	Perceived coworker support for spanking	Knowledge about the NHZ policy and how to intervene
	B (SE)	B (SE)	B (SE)	B (SE)
NHZ intervention	-.08 (.05)	.25 (.04)***	-.09 (.05)*	.70 (.04)***
Covariates				
Female	-.45 (.05)***	.41 (.05)***	-.31 (.05)***	-.08 (.05)
White	-.19 (.11)	.28 (.10)**	-.16 (.11)	.09 (.10)
Parent	-.15 (.04)***	.07 (.04)	-.06 (.04)	.02 (.04)
Age 36–55	-.12 (.04)**	.02 (.04)	-.03 (.05)	-.13 (.04)**
Age 55+	-.39 (.05)***	.30 (.05)***	-.32 (.05)***	.05 (.05)
College graduate	-.05 (.04)	.03 (.04)	.03 (.04)	-.13 (.04)**
Professional degree	-.26 (.06)***	.26 (.06)***	-.11 (.06)	-.21 (.06)***
Direct care	-.15 (.04)***	.10 (.04)**	-.19 (.04)***	.15 (.04)***
N	2,713	2,714	2,683	2,713

Note: Standardized outcome measures. Standard errors (SEs) in parentheses. Reference groups: male, non-White, no children, age < 36, no degree, non-direct care.

* $p < .05$,

** $p < .01$,

*** $p < .001$.

Table 4.

Attitudes about spanking among parents who read NHZ posters or brochures.

		Parents who read NHZ materials	
		All (<i>n</i> = 70)	Parents who reported spanking their children (<i>n</i> = 22)
1.	The NHZ changed my thoughts on discipline.	21.4	36.4
2.	I now think spanking (hitting, slapping, popping) a child is wrong.	17.1	27.3
3.	I now think spanking (hitting, slapping, popping) a child is harmful.	20.00	36.4
4.	I now think there are better ways to discipline a child than spanking.	28.6	50.0
5.	I now have more ideas about ways to discipline a child other than spanking.	20.0	27.3
6.	I now think that it is OK for medical professionals and staff to intervene if they see someone spanking their child.	25.7	45.5
7.	I am now more likely to intervene if I see someone spanking their child.	14.3	18.2
8.	I am now more likely to seek help with child discipline if I need it from my child's pediatrician, nurse, or other medical professional.	24.3	27.3
9.	I now think that most medical professionals disapprove of spanking whereas before I thought that most approved of it.	15.7	18.2
10.	I now think that most parents disapprove of spanking whereas before I thought that most approved of it.	15.7	9.1

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript