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Evidence-Based Training for Enhancing Psychiatric Nurses' Child Behavior Management Skills

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Management of behavior problems in an inpatient child and adolescent psychiatric unit is largely the responsibility of nurses, yet few evidence-based programs exist that prepare nurses for this role. A pilot study examined the effects of a 3-day standardized parent/teacher training program adapted for inpatient child and adolescent psychiatric unit nurses. Findings indicated that the standardized parent/teacher training program resulted in significant increases in self-reported use of child praise/incentives and working with parents, with accompanying desired changes in observed nurse behaviors during nurse–child play sessions. Participants rated the program positively and highlighted gains of greater empathy and fewer judgments of parents. Findings support evidence-based training programs for nursing staff and suggest further research.

Child and adolescent psychiatric staff nurses' knowledge and skills are key factors that influence the daily activities and outcomes of an inpatient child and adolescent psychiatric unit (ICAPU). Management of behavior problems in an ICAPU is primarily the responsibility of the staff nurse. It is, therefore, essential that staff be trained in specific child behavior management programs to obtain knowledge and skills that shape children's behavior, serve as a role model, and teach parents more effective ways to deal with their children.

Research findings indicate that 1 in 10 children and adolescents suffer from mental illness severe enough to interfere with everyday activities (Burns et al., 1995; Shaffer et al., 1996). In addition, conduct problems such as aggression, noncompliance, and defiance affect 20–35% of preschoolers in the United States (Rose, Rose, & Feldman, 1989; Webster-Stratton & Hammond, 1998), and at least 50% of preschoolers with persistent conduct problems will ultimately meet criteria for a psychiatric disorder (Campbell, Ewing, Breaux, & Szumowski, 1986; Egeland, Pianta, & Ogawa, 1996). Indeed, by the time a child requires hospitalization on an inpatient psychiatric unit, critical intervention is indicated, including placing parameters on inappropriate or aggressive behavior(s) and providing encouragement and specific direction to parents with clear rationale for behavioral intervention, parent training, or both.

After a comprehensive review of the literature, it appears that effective training programs for standardized child behavior management are available for parents (Reid, Webster-Stratton, & Baydar, 2004; Webster-Stratton, Reid, & Hammond, 2001), teachers (Martin & Wienke, 1998; Webster-Stratton, Reid, & Hammond, 2004), psychologists (Lochman & Wells, 2004), and even paraprofessionals (Kotkin, 1998). One study was found where researchers examined effects of two approaches, taught to nurses in a 1-day workshop, for managing challenging behaviors of children with learning disabilities (Gates, Newell, & Wray, 2001). However, no published studies were found on effective training programs specifically designed for the ICAPU nurse. In addition, translating evidence-based

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interventions to complement inpatient psychiatric nursing is understudied, and provision of evidence-based training to providers is even less studied. This article reports findings of a study in which the effects of adapting a standardized parent/teacher training program (SP/TTP) to meet the education and training needs of child and adolescent psychiatric nurses were examined.

The purpose of this study was to examine effects of a 3-day SP/TTP on self-reported and observed child behavior management skills among registered nurses (RNs) who work with children and families on an ICAPU. Three study hypotheses were tested and include the following:

After a 3-day standardized workshop, participants will:

1. report greater use of effective child behavior management practices.
2. demonstrate more positive and effective child behavior management strategies.
3. report satisfaction with and success in adapting the SP/TTP content to their child management practices.

METHODS

Design

A quasi-experimental two-group nonrandomized pretest–posttest design was used to examine changes in nurses' child management techniques after participation in a research-based parent/teacher training program that was adapted for child and adolescent psychiatric nurses. Nurses' perceptions of the feasibility and acceptability of the program for their settings were also examined. Figure 1 illustrates the study design.

Sample and Setting

Twenty-seven RNs working in an acute care ICAPU at a large Midwestern academic medical center participated in this study. The 16-bed inpatient psychiatric unit admits children and adolescents from age 2 to 18. Patients admitted to the unit exhibit a wide range of behaviors including aggression, hostility, defiance, and oppositionality. Parents are strongly encouraged to participate in the child's treatment.

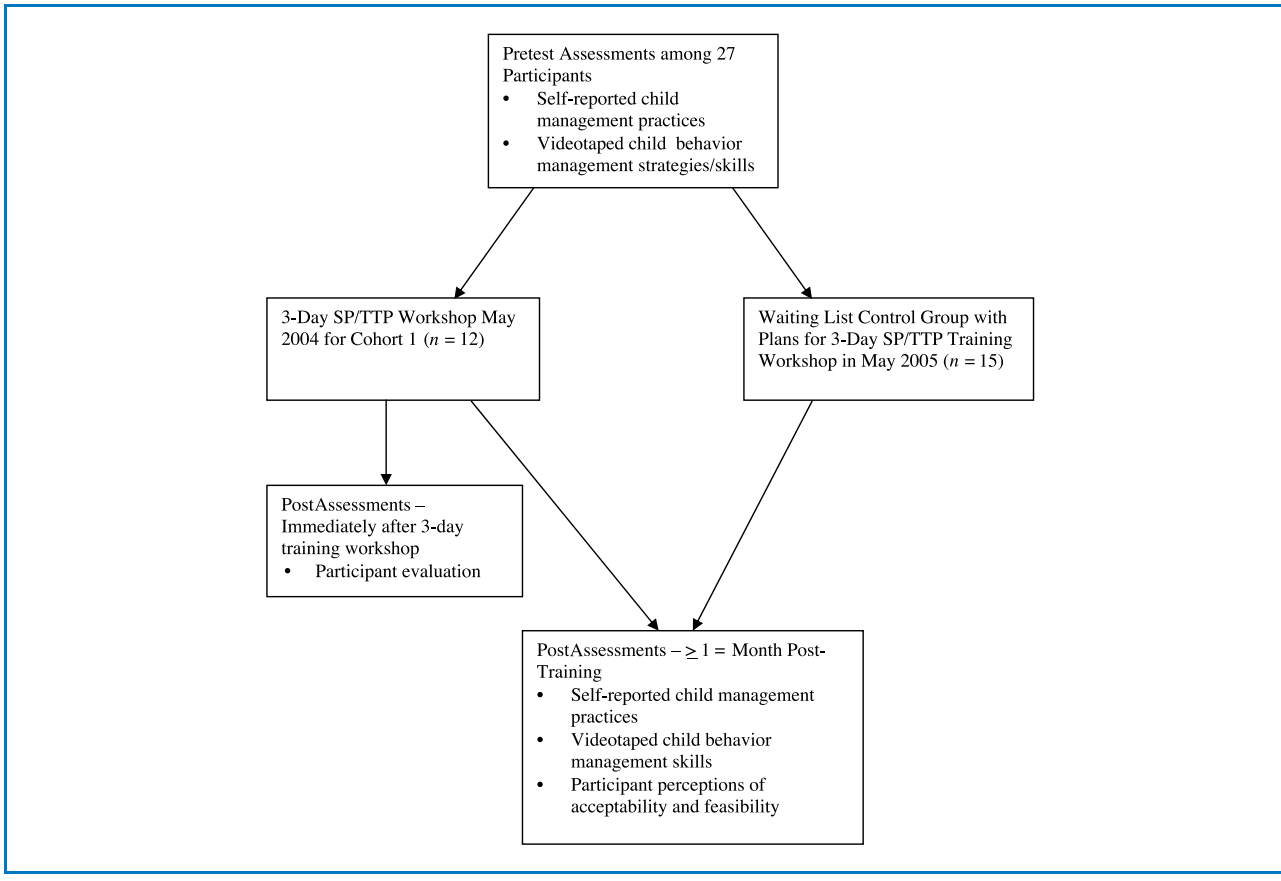

FIGURE 1 Design schema. SP/TTP = standardized parent/teacher training program.

Of the 27, 12 RNs were assigned (based on schedule availability and workload needs for the inpatient unit) to participate in the 3-day workshop in May 2004. Fifteen nurses were assigned to the waiting list control group and scheduled for training 1 year later. Healthy 3- to 7-year-old children were recruited to participate in pretraining and posttraining videotaped 15-min play sessions with the RN participants to evaluate changes in observed child behavior management skills. The children were allowed to participate in as many as three sessions prior to the workshop and as many as three sessions for the posttraining assessment. Because the primary purpose of including the children was to observe the nurses' skills in managing child behavior, minimal data (age, gender, and ethnic status) were collected on the children.

Training Program

The training program provided to participants was adapted from a validated standardized parent training program (SPTP) developed by Webster-Stratton. This SPTP is a video-based program originally developed for parents and focuses on playing and positively interacting with children; praising, encouraging, and rewarding children; setting effective limits with children; and managing child misbehavior. A series of videotaped vignettes of parent–child interactions and behaviors along with a detailed program manual serve as the basis for discussion of parenting strategies. The detailed manual includes a script for each vignette, questions to stimulate discussion, take-home points, handouts, and other learning activities that accompany the videotapes. Webster-Stratton has completed six randomized clinical trials with various populations, and other independent clinical trials have also been completed (Webster-Stratton & Taylor, 2001). Findings include enhanced parenting skills and confidence that have led to more positive parenting, nurturing, and less physically aggressive and critical parenting behaviors and significant reductions in child conduct problems along with significant increases in children's social competence. Program effects have been sustained for up to 5 years for two thirds of families (Webster-Stratton & Taylor, 1998). The original SPTP has been adapted to provide similar training to teachers (Webster-Stratton et al., 2001). This version of the program, titled standardized parent/teacher training program (SP/TTP), was the training tailored for the current study. The SP/TTP included 3 days of learning the principles and skills of the program through highly active participation. Participants received a detailed training manual well in advance of the training. During the training, the nurses participated as a parent would. They watched many of the same videotape vignettes, actively engaged in role playing, were given multiple reading assignments, and were involved in ongoing dialogue with the trainer over the 3 days. They also watched videotapes of parent groups in session. The trainer tailored the workshop and discussions to simulate the child and adolescent psychiatric setting.

Variables and Measures

The primary variables (end points) of interest in this study were participants' self-reported ratings of specific child management strategies; observed participants' child behavior management skills; and participants' feedback related to program feasibility, acceptability, and satisfaction. Each of the variables and accompanying instruments is briefly described.

Nurses' Ratings of Frequency and Usefulness of Child Behavior Management Strategies

Participants were asked to rate their use of several child behavior management strategies that are consistent with the principles and skills of the SP/TTP. The Teacher Strategies Questionnaire (TSQ) was modified for use in this study and relabeled the Nurse's Strategies Questionnaire (NSQ). The TSQ was developed by Webster-Stratton (1998) to measure training effects among teachers. The 46-item questionnaire asked teachers to rate the difficulty in using a number of teaching strategies, the usefulness of each strategy, their overall confidence in managing child behavior, and the frequency in which they work with parents. Webster-Stratton reported alpha coefficients for internal consistency ranging from .52 to .97 for four domains. Average scores differed minimally between intervention and control participants at baseline and after the training program, resulting in revisions to the questionnaire.

The TSQ was revised with the initial difficulty domain changed to frequency of use domain of each strategy, and the number of items increased in the frequency and usefulness domains to 34 (Webster-Stratton, 1998). These 34 items comprised five subcategories: total positive strategies (18 items), praise and incentives (6 items), proactive strategies (7 items), limit setting (5 items), and inappropriate strategies (9 items). Response options ranged from 1 (*rarely/never*) to 5 (*very often*). The working with parents domain was reduced to 8 items that regarded specific activities (e.g., promoting parent involvement or teaching parenting skills) using a 6-point response scale ranging from 1 (*never*) to 6 (*daily*).

The NSQ was drafted from the revised version of the TSQ and used for the first time in this study. Of

44 items on the revised TSQ (appropriate for the classroom setting), 4 were deemed not appropriate for the inpatient child psychiatric setting and were either deleted or modified to fit the inpatient setting. Two of these items were from the frequency/usefulness domains, and 2 were from the working with parents domain, creating a 40-item questionnaire. The domains were similar with the TSQ, with the first domain regarding overall confidence in managing child behavior that included a 7-point response scale (anchors of 1 very unconfident] to 7 [*very confident*]). The second and third domains included 32 items asking nurses to rate how (a) frequently they used specific child management techniques and (b) useful they found the techniques (e.g., comment on good behavior, use physical restraints, use verbal redirection for child who is disengaged, use problem-solving strategy, and give clear positive direction). The frequency response scale ranged from 0 (*does not apply*) to 5 (*very often*), and the usefulness response scale ranged from 1 (*rarely/never*) to 5 (*very often*). The same five subcategories found in the TCQ were retained and included total positive strategies, praise and incentives, proactive strategies, limit setting, and inappropriate strategies. The fourth domain asked nurses to rate how frequently they work with parents using a 6-point response scale ranging from 1 (*never*) to 6 (*daily*).

Observed Participants' Child Behavior Management Skills

Participant child management skills were measured during a 15-min nurse–child videotaped play session using the Dyadic Parent–Child Interaction Coding System-Revised (DPICS-R). The DPICS-R is a widely researched observational coding system developed by Robinson and Eyberg (1981) and revised by Webster-Stratton several times (1998–2000). The DPICS includes 29 behavior categories designed for recording behaviors of children and their parents during live or videotaped observations. The DPICS has gone through extensive testing and development (Robinson & Eyberg, 1981). Interrater reliability was reported by Robinson & Eyberg (1981) as .91 for parent behaviors and .92 for child behaviors. Webster-Stratton and colleagues have further demonstrated validity and reliability of the DPICS-R (Reid et al., 2004).

The DPICS-R had not been tested with nurse–child interactions; however, it was believed that the parent behavioral categories of the DPICS-R matched the psychiatric nurses' behaviors practiced on an ICAPU. Some of the categories were expected to occur less frequently given the nurse and child would likely act differently than if the nurse participant were the child's parent or a familiar adult. Table 1 outlines the behavioral categories and specific DPICS items coded in the study.

Participants' Perceptions of Feasibility, Acceptability, and Satisfaction With the Incredible Years Training Program

Three different evaluation tools were completed by participants who participated in the 3-day workshop. First, after each of the 3 days, participants completed the Parent Group Leader Training Evaluation Tool,

TABLE 1 Study DPICS-R Categories and Accompanying Items

DPICS-R category	DPICS-R item	DPICS-R item examples
Participant positive verbal statements	Acknowledgments	''Sure'' or ''There we go''
	Unlabeled praise	''Good boy''
	Labeled praise	''You have a wonderful imagination''
	Encouragements	''You did it'' or ''You are getting it''
Participant negative verbal statements	Negative commands	''Cut that out'' or ''no hitting''
	Critical statements	''You're a naughty boy''
Participant positive nonverbal behaviors	Positive affect	Smiling and laughing
	Positive physical behaviors	Giving a child a hug
Participant negative nonverbal behaviors	Physical negatives	Adult-initiated touching that inflicts pain, restrains, forces or pulls the child, or accompanies a critical remark
Participant commands	Direct commands	''Listen to me'' or ''Please tie your shoes''
	Indirect commands	''Listen'' or ''Be careful''

which provided a daily rating of the content of the session, the leader's teaching and leadership skill, the group discussion, the group interaction, and use of role plays. Participants also provided open-ended information each day regarding what was most useful, what they liked most, what they liked least, what could be improved, and any additional feedback. Second, on the last workshop day, participants completed the Parent–Group Leader Training Workshop Evaluation, an overall program evaluation. This evaluation form asked participants to rate the leader's teaching and leadership skill, the leader's knowledge, the most effective workshop methods, and the group discussion. Participants again provided open-ended responses related to what part of the workshop was most helpful, what they liked most and least about the workshop, and how the workshop could be improved.

The third questionnaire, Incredible Years Training Workshop Post-Training Questions, was developed by the researchers and asked participants (a) to rate the feasibility and acceptability of the SP/TTP, (b) what had changed in their practice because of the training in terms of working with children and parents, (c) whether they would recommend the training to other ICAPU nurses, and (d) whether their job satisfaction had changed because of the training. In addition, they were asked about barriers and facilitators for use in their settings. No psychometric data were available for these participant evaluation tools.

Study Procedures

Approval to conduct the study was obtained by the agency nursing research committee and institutional review board about 3 weeks prior to the first scheduled training. All nurses working on the inpatient unit were invited to participate in the study as an optional component of the mandatory training program. Cohort 1 nurses were invited to participate in the study about 2 weeks prior to the scheduled 2004 training. Three (20%) of the Cohort 1 nurses declined participation, and one (8%) dropped out of the study prior to the postworkshop data collection. Discomfort with the videotaping procedures was the primary reason for declining participation.

Participants were contacted through a letter sent to their work addresses and invited to participate in a study to formally evaluate the training workshop. Participants were informed of what participation would consist of and approximately how much time would be required. Participants completed a demographic questionnaire and the NSQ and participated in a videotaped 15-min play session with a healthy child 3–7 years old. The sessions were held in a designated room at the study site.

Children ages 3–7 were recruited through word of mouth and a posting of an internal Web recruitment advertisement at the study site. Parents were invited to enroll their child in the study to participate in one or more play sessions (up to six over 1.5 months) with a nurse experienced in working with children. The videotaping was completed by study staff using a standard script at the study site or at the local community early child and family education program. Parents were paid $20 for each play session in which their child participated.

After the 2004 training workshop, the same data collected at baseline (NSQ and videotaped play session) were collected from Cohort 1 nurses. Most data were collected at 1–4 months posttraining with the exception of data collected from two nurses 9–10 months after the training because of scheduling and practice issues. Cohort 2 nurses were invited to participate in the study and provided their baseline data at the same time most Cohort 1 nurses' postworkshop data were collected. All data were kept confidential with identification numbers only and stored in locked files in the principal investigator (PI)'s office.

The study PI hired and trained an independent coder (naive to the study hypotheses and participant group assignments) in use of the DPICS-R to code the videotapes. The PI used the DPICS-R manual and training techniques she had developed in previous studies where she has served as a consultant to train and oversee the coding of videotaped parent–child interactions using the DPICS-R. In the current study, the PI trained the coder to reach an interrater agreement of 90% using practice videotapes before beginning the coding of study tapes. The coder also regularly checked with the PI on any questions or doubt about which coding category to assign a behavior.

Data Analysis

Data analysis included descriptive and inferential statistics. The primary end points were participant self-reported and demonstrated skills. Participants' perceptions of the feasibility and acceptability of the program for their settings were also a primary end point. Scores were summed for the items that comprised each of the four scales of the NSQ. For the DPICS, the selected items outlined earlier were summarized as frequencies of occurrence for the 15 min of free play. Baseline scores were compared among Cohorts 1 and 2, and baseline scores were compared with posttraining scores for Cohort 1. Nonparametric statistics were used to analyze data because of the small sample and violation of assumptions for parametric statistics. Statistical power for detecting

differences between cohorts and training effects was low for many of the variables ranging from 5.5% to 87%. Themes were summarized from a review of the narrative data.

RESULTS

Demographics

Twenty-seven RNs participated in the study. All were Caucasian and averaged 35 years old. They worked varying shifts, either day–evenings or day–nights on the child and adolescent inpatient unit. The children who participated in the study in the preworkshop data were 54% boys and 90% White. For the postworkshop data, 58% were boys and 75% White.

Study Findings

Hypothesis 1: After a 3-day standardized workshop, participants will report greater use of effective child behavior management practices.

Nurses self-reported use of child behavior management strategies on the NSQ. As a reminder, the NSQ included four domains: (1) overall confidence in managing child behavior, (2) ratings of frequency of specific behavior management techniques, (3) ratings of usefulness of specific behavior management techniques, and (4) ratings of frequency in working with parents. Five subcategories are included in the second/third domains as outlined earlier. After reviewing the analyses and revisiting the specific items in the frequency/usefulness domains, it was concluded that 10 items were really more specific to the classroom settings and did not fit the inpatient child and adolescent nursing practice. These items were thus removed from further analyses, leaving 22 items for each of the frequency and usefulness domains.

Participant responses for the NSQ at baseline are reported in Table 2 for each cohort. Statistical comparisons between groups at baseline indicated no significant differences except for the category of inappropriate strategies. Participants in Cohort 1 self-rated greater frequency and usefulness of items that comprised the inappropriate strategies subscale. Table 3 compares the baseline and postworkshop data for Cohort 1 (participants trained in 2004). Significant

TABLE 2 Baseline Statistics for the Nurses' Strategies Questionnaire by Cohort

	Cohort 1		Cohort 2		
	M (SD)/median	*n*	M (SD)/median	*n*	MWU (*p*)
NSQ confidence domain	10.00 (3.26)/12	11	11.00 (3.06)/12	13	51 (.185)
NSQ specific techniques domain					
Frequency					
Total positives	63.92 (6.07)/63	12	62.92 (8.05)/63	12	67 (.773)
Praise and incentives	25.92 (3.00)/26	12	26.43 (3.80)/26	14	78 (.756)
Proactive strategies	23.25 (3.12)/24	12	22.92 (3.20)/24	13	75 (.848)
Limit setting	14.75 (2.14)/15	12	13.46 (2.18)/14	13	51 (.129)
Inappropriate strategies	12.58 (2.68)/12	12	9.50 (2.35)/9	14	32 (.007)*
Usefulness					
Total positives	60.42 (10.06)/64	12	62.00 (9.50)/60	14	83 (.959)
Praise and incentives	25.92 (4.83)/28	12	26.79 (5.01)/27	14	81 (.877)
Proactive strategies	21.67 (3.73)/23	12	22.07 (3.93)/24	14	84 (.979)
Limit setting	12.83 (2.62)/13	12	13.14 (1.96)/14	14	79 (.795)
Inappropriate strategies	13.64 (2.34)/14	11	11.29 (2.92)/11	14	41 (.047)*
Working with parents frequency domain	28.67 (3.75)/29	12	28.85 (4.30)/28	13	75 (.870)

Note. MWU = Mann–Whitney U statistic; NSQ = Nurse's Strategies Questionnaire.
*Significant *p* value at the .05 alpha level of significance.

TABLE 3 Statistics for Cohort 1 Participants' Strategies Questionnaire Over Time

	Baseline		Posttraining workshop		
	M (SD)/median	*n*	M (SD)/median	*n*	Wilcoxon[a] (*p*)
NSQ confidence domain	10.00 (3.26)/12	11	11.00 (3.06)/12	13	.00 (1.00)
NSQ specific techniques domain					
Frequency					
Total positives	63.92 (6.07)/63	12	68.40 (4.77)/69	10	−1.60 (.109)
Praise and incentives	25.92 (3.00)/26	12	29.64 (2.91)/29	11	−2.10 (.036)*
Proactive strategies	23.25 (3.12)/24	12	23.82 (2.18)/24	11	−0.565 (.572)
Limit setting	14.75 (2.14)/15	12	15.00 (2.00)/15	10	−0.659 (.510)
Inappropriate strategies	12.58 (2.68)/12	12	11.09 (3.36)/10	11	−1.23 (.218)
Usefulness					
Total positives	60.42 (10.06)/64	12	65.56 (8.57)/64	9	−1.25 (.213)
Praise and incentives	25.92 (4.83)/28	12	29.27 (3.74)/28	11	−1.33 (.185)
Proactive strategies	21.67 (3.73)/23	12	22.10 (2.96)/22	10	−.539 (.590)
Limit setting	12.83 (2.62)/13	12	14.70 (2.58)/15	10	−1.38 (.167)
Inappropriate strategies	13.64 (2.34)/14	11	12.36 (3.07)/12	11	−.679 (.497)
Working with parents frequency domain	28.67 (3.75)/29	12	30.55 (2.30)/31	11	−2.54 (.01)*

Note. NSQ = Nurse's Strategies Questionnaire.
[a]Based on the Wilcoxon signed ranks test.
*Significant *p* value at the 0.005 alpha level of significance.

changes were found for two categories, frequency of use of praise and incentives ($p = .036$) and frequency in working with parents ($p = .01$). Both changes supported the study hypothesis. The other categories did not change significantly; however, the scores changed in the hypothesized direction in every category, including inappropriate strategies where average ratings declined. Statistical power was low for these categories, ranging from 6% to 49%.

Hypothesis 2: After a 3-day standardized workshop, participants will demonstrate more positive and effective child behavior management strategies.

Participant observation data responses for DPICS at baseline are reported in Table 4 for each cohort. The data were analyzed as average behaviors per minute as there was some variability in length of the play sessions because of nurse participant and child issues. Statistical analyses indicated no significant baseline differences between groups for any of the observation categories. Table 5 compares the baseline and postworkshop data for Cohort 1 (participants trained in 2004). Significant effects were found for three of the five observation categories: participant positive verbal statements increased ($p = .016$), participant negative verbal statements declined ($p = .028$), and nurse participant use of commands during the play session declined ($p = .013$). The data for all three categories support the study hypotheses. The other two categories did not change significantly; however, the frequencies were very low overall, making detection of change impossible or unlikely, particularly with such a small sample size (statistical power ranged from 0 to 9%).

Hypothesis 3: After a 3-day standardized workshop, participants will report satisfaction with and success in adapting the SP/TT content to their child management practices.

The 2004 workshop was offered to 25 participants, 12 of whom were the psychiatric child and adolescent nurses who participated in the study. Program evaluation forms were purposively anonymized, leaving the analyses to reflect the entire 25 workshop participants rather than only the 12 study participants. For each of the daily evaluations (Parent Group Leader Training Evaluation Tool), content was rated as very helpful or helpful by 95–100% of participants; the leader's teaching and leadership were rated as helpful or very helpful

TABLE 4 Baseline Statistics for the Participants' Observation Data by Cohort (Behaviors/Minute)

	Cohort 1		Cohort 2		
DPICS categories	M (SD)/median	*n*	M (SD)/median	*n*	MWU[a] (*p*)
Participant positive verbal statements	4.65 (1.64)/4.59	12	4.33 (1.51)/4.09	15	81 (.643)
Participant negative verbal statements	.128 (.160)/.033	12	.241 (.227)/.146	15	61 (.145)
Participant positive nonverbal behaviors	1.10 (.564)/1.07	12	1.05 (.711)/.930	15	85 (.807)
Participant negative nonverbal behaviors	00.00	12	00.00	15	90 (1.00)
Participant commands	1.43 (.947)/1.22	12	1.19 (.657)/1.33	15	79 (.574)

Note. MWU = Mann–Whitney U statistic; DPICS = Dyadic Parent–Child Interaction Coding System.

by 96–100% of participants; group discussions and interactions were rated as helpful or very helpful by 94–96% of participants; and use of role plays was rated as helpful or very helpful by 92–100% of participants. Daily narrative comments were overall very positive, with salient favorable comments related to the role plays, videotapes, and research examples. Improvement suggestions included practical points such as allowing more breaks, separating the administrative support component from the other components, and providing more explanation of written training materials.

Regarding the overall program evaluation, Parent–Group Leader Training Workshop Evaluation, 92% (n = 23) of the participants rated the leader's teaching and skill as above average, and 100% (n = 25) of participants rated the leader's knowledge as above average. Seventy-six percent of the group (n = 19) rated the group discussion as above average, and 24% (n = 6) rated it as average. In terms of the most effective workshop methods, the highest rated method was leader's discussion and teaching (64% rated as first or second most effective) followed by the parent–child videotaped scenarios (56% rated as first or second most effective), use of role plays (48% rated as first or second most effective), and group discussion and interaction (64% rated as first or third most effective). The written handouts and use of videotapes of actual parent groups were rated as the least effective methods.

Responses on the Incredible Years Training Workshop Post-Training Questions indicated that 45% (n = 9) of participants found the program to be very feasible for their setting whereas 50% (n = 10) rated the program as somewhat feasible. Seventy-five percent (n = 15) of participants rated the training program as very acceptable for their practice setting, and 25% (n = 5) rated it as somewhat acceptable. Participants provided rich open-ended information regarding the program and how it benefited their

TABLE 5 Statistics for Cohort 1 Nurses' Observation Data Over Time (Behaviors/Minute)

	Baseline		Posttraining workshop		
DPICS categories	M (SD)/median	*n*	M (SD)/median	*n*	Wilcoxon[a] (*p*)
Participant positive verbal statements	4.65 (1.64)/4.59	12	6.19 (2.19)/6.32	11	−2.40 (.016)*
Participant negative verbal statements	.128 (.160)/.033	12	.073 (.128)/.00	11	−2.20 (.028)*
Participant positive nonverbal behaviors	1.10 (.564)/1.07	12	.957 (.590)/.933	11	−1.07 (.286)
Participant negative nonverbal behaviors	00.00	12	.018 (.060)/.00	11	−1.00 (.317)
Participant commands	1.43 (.947)/1.22	12	.778 (.760)/.528	11	−2.49 (.013)*

[a]Based on the Wilcoxon signed ranks test.

*Significant *p* value at the .05 alpha level of significance.

future practices. Select participant evaluation quotes include the following:

> I think it will be beneficial in helping parents as I become less judgmental and blaming.
>
> It has given me more confidence in dealing with limit setting and time-out and also gave me some new ideas for facilitating groups.
>
> Allowed me to develop new skills and identify areas to improve on.
>
> Learning improved communication skills with parents (i.e., use of validation, universality, no humiliation and no blame).
>
> Reminders of how to play, playing is different for an adult vs. child.

CONCLUSIONS

These study findings indicate significant changes in nurses' self-reported frequency in their use of praise, rewards, and work with parents following the training workshop. Although self-reported changes are important enough for empowering nurses with evidence-based strategies to manage children's behavior, these changes were substantially strengthened by parallel changes in the nurses' actual behaviors directly observed by a blinded coder from videotaped interactions with young children. These changes closely align the training workshop aims and intervention ingredients. Even the self-reported domains that did not reach statistical significance, all changed in the hypothesized directions. In addition, nurses' overall narrative comments about the feasibility, acceptability, and their satisfaction were highly supportive of the training workshop.

The strength of these findings is further extended by comparisons with baseline data from Cohort 2, the participants on a 1-year waiting list for the training. Only one difference was found between groups on baseline data, and this was for self-reported use of inappropriate strategies. Cohort 2 participants reported fewer in their baseline data, which might reflect an exposure effect because participants became somewhat aware of the overall program philosophy even though they had not yet participated in the 3-day workshop.

The findings are important for a number of reasons. First, the training workshop is a highly researched program which provided child behavior management knowledge and skills. The training has consistently yielded parental and teacher improvement in child management skills. This is the first (known) study to adapt and translate this training program for child and adolescent psychiatric nurses. The evidence serves to further advance the child behavior management science by supporting standardized training for nurses who are responsible for managing and shaping children's behaviors. Moreover, the program studied appears flexible and adaptable in meeting the education and training needs of a variety of adults who care for children.

On a related note, offering standardized training of any sort to child and adolescent psychiatric nurses has been inconsistent, if not absent, across the country. Nurses often receive very limited training in their basic nursing programs related to child development, child behavior, parent-child interactions, and management of behavior problems. Instead, nurses gain knowledge through hospital-based staff development and on-the-job experience (Rodgers, 2005). Preceptors are typically available for new nurses on a hospital unit, yet preceptors themselves often have little formal training and may teach traditional nursing practices rather than evidence-based nursing practice (Rodgers, 2005). The SP/TTP provided to the nurses in this study is grounded in evidence from multiple studies that have consistently revealed positive effects for parent/teacher competencies, positive child behavior, and parent-child interactions. In addition, the SP/TTP is based in a number of theoretical frameworks (e.g., cognitive behavioral theory, self-efficacy theory, and social learning theory), providing a solid basis for building nurses' confidence; strengthening their skills set; and empowering them with a variety of tools to manage very difficult child behavior, promote parenting competencies, and support positive parent-child interactions.

Although the study findings are indeed positive and encouraging, they must be interpreted cautiously in light of study limitations. The study included a very small homogenous sample; thus, the data may not be generalizable to other nurses. A second limitation is that the assignment of nurses to each cohort was not random, and thus a selection bias may have influenced the findings. The adapted NSQ was used for the first time in this study, and no psychometric data yet exist. The lack of participant follow-up over time is also a limitation of the study. Whether the changes in the nurses' skills and knowledge are sustainable over time is an important remaining gap in understanding the effectiveness and feasibility of offering the SP/TTP to child and adolescent psychiatric nurses.

IMPLICATIONS FOR PRACTICE AND RESEARCH

The study findings are highly positive from a practice perspective and from the perspectives of staff development. Increasing staff nurses' knowledge and skills

in working with parents, using praise and incentives with children and parents, and reducing the amount of overall commands (at least in one observed encounter) is highly consistent with the training program principles and the psychiatric inpatient milieu that effectively manages child behavior problems. The multiple teaching strategies in the workshop (e.g., videotaped vignettes, leader teaching, and role plays) may be an important parallel process method for promoting effective nursing interventions. This is critical when working with extremely difficult child behaviors as various strategies will work with some children at some times but not all children at all times. Use of multiple intervention options and strategies increases the likelihood of effective problem solving and behavior management, thus reducing risk or preventing one child's disruptive behavior from escalating other children on an inpatient psychiatric unit. Moreover, children with behavior problems often have anger management, anxiety problems, or both. Nurses equipped with intervention techniques for child self-management can role model for the child and parent. This is an important therapeutic goal for child and adolescent psychiatric nurses. Staff development specialists such as nursing education specialists and clinical nurse specialists can help staff nurses gain these skills through evidence-based training programs.

The participants' narrative responses specifically identified that they gained knowledge and skills related to empathy. The use of empathy has been discussed as an important skill for promoting rapport with mental health clients and increasing the expression of feelings that are often suppressed, behaviorally expressed, or both. This same skill is important in working with parents who often feel guilty, hopeless, and helpless with regard to their children's mental health problems and out-of-control behavior. Validating a parent's feelings of frustration and despair is often a first step in reducing defensiveness and promoting a parent's willingness to openly discuss options, strategies, and steps once the child is dismissed from the hospital. The nurses also revealed in their evaluative comments that the training helped reduce their tendency to judge parents. Such a profound change in a nurse's perspective can serve as a catalyst to motivate the nurses to empower parents to move forward in supporting and working with their troubled child. Thus, staff development specialists can ensure that any training for staff nurses includes a focus on judgmental attitudes and how to reduce these, which will ultimately enhance positive patient outcomes.

Another important clinical implication from this study is the outcome of promoting consistent use of conflict management skills among multiple nurses interacting with a group of children. Because behavioral problems are often the primary expression of frustration and emotional distress in children, a consistent approach among nurses is essential to manage multiple children with multiple needs at one time. Reducing and preventing a child from pitting staff nurses against each other are key factors to minimizing behavioral outbursts and escalation on an inpatient unit. Staff development specialists can use the training materials, role playing, and ongoing support of staff to promote this outcome.

A final implication from a practice and clinical perspective relates to the necessary contextual factors such as administrative and financial support necessary for such a training workshop to be provided to nursing staff on a child and adolescent inpatient unit. Kitson, Harvey, and McCormack (1998) introduced a multidimensional framework that hypothesized that successful implementation of evidence into practice is a function of three dimensions that influence the translational process: (1) the level of evidence of the best practice (or intervention); (2) the context into which the evidence is most effectively implemented; and (3) the method of facilitating change in regard to service delivery, organizational, and service system characteristics. Kitson et al. proposed that the best conditions for translating research into practice are when all three dimensions are high. Contextually, the SP/TTP incurs a cost itself, but there are also the indirect expenses associated with having multiple nurses away from patient care at one time, who are paid for attending the workshop while having replacement nurses provide patient care. In addition, the interdisciplinary members of the team will need to support the evidence-based training program being offered to staff. If the program theoretical underpinnings and strategies are inconsistent with the full team's treatment approach, it is unlikely to be effective for nursing staff to use and sustain. Facilitation of a practice change can be a major role of the staff development specialist to foster successful implementation and provide support for maintaining staff behavior changes.

Indeed, Kitson et al. (1998) proposed that poor contexts may be overcome by appropriate facilitation. The nurse manager and clinical nurse specialist (whose job includes staff development) on the unit of focus in this study were and continue to be major facilitators (champions) for the evidence-based training program and its use with hospitalized children and their families. Their ongoing clinical observations and interactions with nursing staff are highly suggestive of the staff's gains from the training program and their continued growth and development of skills and therapeutic encounters with

children and parents. The effort and support of these leaders in bringing the program to staff and introducing the program within the context of a research design were highly influential in being able to demonstrate the benefits of the training program. Ongoing efforts to evaluate the sustainability of the benefits will be important. Staff development specialists in other agencies/settings can offer similar leadership in bringing and evaluating evidence-based training and practices to real-world settings.

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