



Evidence-Based Practice in Child and Adolescent Mental Health

ISSN: 2379-4925 (Print) 2379-4933 (Online) Journal homepage: <https://www.tandfonline.com/loi/uebh20>

The Collaborative Life Skills Program in Spanish (CLS-S): Pilot Investigation of Intervention Process, Outcomes, and Qualitative Feedback

Lauren M. Haack, Eva A. Araujo, Kevin Delucchi, Allyson Beaulieu & Linda J. Pfiffner

To cite this article: Lauren M. Haack, Eva A. Araujo, Kevin Delucchi, Allyson Beaulieu & Linda J. Pfiffner (2019): The Collaborative Life Skills Program in Spanish (CLS-S): Pilot Investigation of Intervention Process, Outcomes, and Qualitative Feedback, Evidence-Based Practice in Child and Adolescent Mental Health, DOI: [10.1080/23794925.2018.1560236](https://doi.org/10.1080/23794925.2018.1560236)

To link to this article: <https://doi.org/10.1080/23794925.2018.1560236>



Accepted author version posted online: 09 Jan 2019.
Published online: 22 Feb 2019.



Submit your article to this journal [↗](#)



Article views: 9



View Crossmark data [↗](#)



The Collaborative Life Skills Program in Spanish (CLS-S): Pilot Investigation of Intervention Process, Outcomes, and Qualitative Feedback

Lauren M. Haack^a, Eva A. Araujo^b, Kevin Delucchi^a, Allyson Beaulieu^a, and Linda J. Pfiffner^a

^aDepartment of Psychiatry, University of California, San Francisco, CA, USA; ^bPsychology Department, University Autonomous of Sinaloa, Culiacán, Mexico

ABSTRACT

Behavioral intervention trials for Attention-Deficit/Hyperactivity Disorder (ADHD) consistently document favorable fidelity and outcome results. However, less is known about the generalizability of these findings to non-English-speaking minority groups. To address existing gaps in the availability and evaluation of school-home interventions for Spanish-speaking Latinos, we adapted the Collaborative Life Skills (CLS) Program for Spanish-speaking families (i.e., CLS-S) and implemented/evaluated the adapted program in a pilot study. Participants included 24 Latino children in grades second-fifth across four elementary schools; two of these schools ($n = 12$) were assigned to receive CLS-S and two schools ($n = 12$) were assigned to usual school services followed by CLS-S after completion of the trial. Results suggest CLS can be successfully implemented in Spanish, as evidenced by high levels of CLS-S fidelity to intervention, as well as high levels of participant attendance and adherence to treatment strategies. Results also suggest promising outcomes from CLS-S, as evidenced by significant post-treatment improvement in ADHD and ODD symptoms reported by parents/caregivers and teachers, social skills reported by parents/caregivers, and organizational problems reported by teachers for treated families compared to families receiving school services as usual. Parent/caregiver reports of ADHD and ODD symptom improvement also are significant at follow-up during the next school year. Qualitative themes emerged supporting CLS-S process and outcome results, including parent/caregiver appreciation of the collaborative design, rapport with staff, and ease of CLS-S employment. Taken together, mixed-method findings support translating evidence-based interventions for theoretically-guided implementation/evaluation in our increasingly diverse communities.

Introduction

Attention deficit/hyperactivity disorder (ADHD) is one of the most widespread childhood disorders impacting 5%–10% of youth (American Psychiatric Association, 2013; Faraone et al., 2015; Willcutt, 2012). Culturally sensitive epidemiological research shows similar ADHD prevalence across cultures (Faraone, Sergeant, Gillberg, & Biederman, 2003; Flores et al., 2002; Willcutt, 2012). However, ethnic minority populations (such as Latinos) are particularly vulnerable for underidentification and underutilization of services due to barriers across all stages of help seeking (Eraldi, Mazzuca, Clarke, & Power, 2006; Haack & Gerdes, 2014; Paidipati, Brawner, Eiraldi, & Deatrick, 2017; Reardon et al., 2017).

ADHD symptoms coincide with debilitating impairment across settings, including academic underachievement (DuPaul, 2007), social difficulties (Hoza, 2007), and family discord (Bauermeister

et al., 2005; Johnston & Mash, 2001). Without proper identification and intervention, ADHD and related impairments lead to lasting and costly consequences for the individual, his or her community, and society, such as unstable relationships, comorbid disorders, risky/law-breaking behavior, lower occupational status, and persistent unemployment (American Psychiatric Association, 2013; Biederman et al., 2012; Flory, Molina, Pelham, Gnagy, & Smith, 2006; Hinshaw et al., 2012). Thus, the high prevalence of ADHD, as well as the long-standing and widespread impact of related impairment, makes this area deserving of substantial attention across cultures.

Two evidence-based interventions for ADHD are established: (a) stimulant medications and (b) behavioral treatments, which include parent-focused skills training, child skills training, and/or classroom management (Pfiffner & Haack, 2015).

Randomized controlled trials (RCTs) investigating the efficacy of behavioral treatments for ADHD consistently document statistically significant and clinically meaningful improvements in ADHD symptoms, academic achievement, social competence, and familial functioning (Evans, Owens, & Bunford, 2014; Pfiffner & Haack, 2015). Multicomponent behavioral treatments appear to be particularly efficacious in producing lasting and generalized child outcomes (e.g., Pfiffner, Hinshaw, Owens, Zalecki, Kaiser, Villodas, & McBurnett, 2014; Power, Mautone, & Soffer, 2012; Webster-Stratton, Reid, & Beauchaine, 2011). However, if trials use homogenous samples lacking diversity, generalizability in minority groups remains unknown (Huey & Polo, 2008). This knowledge gap is particularly relevant for the rapidly growing Latino population, given the disproportionate underutilization of ADHD services for Latino youth, as well as the tendency for Latino families to prefer behavioral interventions over medication (Paidipati et al., 2017; Pham, Carlson, & Kosciulek, 2009). Thus, efforts to translate evidence-based behavioral services for implementation/evaluation in Spanish-speaking Latino populations are warranted.

Adapting evidence-based interventions for Spanish-speaking Latino families

Substantial empirical evidence demonstrates that at-risk and underserved populations (such as Spanish-speaking Latino families) can benefit from adapted interventions (Castro, Barrera, & Holleran Steiker, 2010; Gonzales, Lau, Murry, Pina, & Barrera, 2016). Interventions incorporating parent/caregiver skills training are particularly appropriate for adaptation given the strong relation between culture and parenting practices (Barker, Cook, & Borrego, 2010; Ortiz & Del Vecchio, 2013) and the potential mismatch between existing parent skills training interventions (which reflect the goals and values of the majority culture) with parenting practices common in minority cultures (Forehand & Kotchick, 1996). Recommendations for culturally appropriate behavioral interventions emphasize the need to consider how cultural factors influence treatment process and outcomes and, if indicated, incorporate cultural variables into interventions to improve acceptability and

effectiveness (Barker et al., 2010; Ortiz & Del Vecchio, 2013). Latino cultural values of *respeto* (i.e., obedience to authority), *personalismo* (i.e., warm, interpersonal relationships), *familismo* (i.e., closeness of the family over individuality), and *buena educacion* (i.e., importance of education and academics) have been identified as particularly salient factors to consider in behavioral interventions with Latino families (Barker et al., 2010; Baumann, Domenech Rodríguez, Amador, Forgatch, & Parra-Cardona, 2014; Matos, Torres, Santiago, Jurado, & Rodríguez, 2006).

Several empirically supported behavioral interventions have been adapted for Spanish-speaking Latino families with promising results, such as Parent Management Training Oregon Model (Baumann et al., 2014; Domenech Rodríguez, Baumann, & Schwartz, 2011; Martinez & Eddy, 2005; Parra-Cardona et al., 2017), Parenting Our Children to Excellence (Dumas, Arriaga, Begle, & Longoria, 2010), and Parent–Child Interaction Therapy (Matos, Bauermeister, & Bernal, 2009; McCabe, Yeh, Garland, Lau, & Chavez, 2005). Across successful examples, adaptation efforts include (a) ongoing collaboration between the intervention developer and cultural adaptation team; (b) iterative revisions and adaptation efforts based on pilot work, observation, and feedback; and (c) guidance of theoretical models.

One of the first known cultural adaptation models was Bernal, Bonilla, and Bellido's (1995) ecological validity model (EVM). Originally developed for Latinos, this theoretical model examines eight domains of consideration when culturally adapting evidence-based interventions (see Table 1 for summary). It has been used in many cultural adaptations to date, which allows for identification of similarities and differences across adaptation efforts. For example, several commonalities along EVM domains can be found in existing adaptations of behavioral interventions for Spanish-speaking families (e.g., Domenech Matos et al., 2009, 2006; Rodríguez et al., 2011). To begin, the first EVM domain of LANGUAGE typically is addressed by translating the intervention manual and materials for cultural and linguistic appropriateness. The EVM PERSONS domain can be addressed by focusing on rapport building between families and providers, aligning with the traditional Latino value of *personalismo*. METAPHORS often are addressed by presenting

intervention examples in the form of *dichos*, or traditional Latino proverbs. The EVM CONTENT and GOALS domains can be addressed by framing intervention techniques and objectives as cultural values, such as referring to compliance as *respeto*. The EVM CONCEPTS domain can be addressed by inviting extended family members to participate in treatment, aligning with the Latino value of *familismo*. METHODS can be modified by eliminating or modifying parenting strategies that lack cultural relevance and practice, such as “time-out.” Finally, the EVM CONTEXT domain can be addressed by including discussion of culturally relevant issues, such as acculturation and/or fears related to discovery of legal documentation status.

Another class of theoretical adaptation models involve stages, such as Domenech-Rodriguez and Wieling’s (2005) cultural adaptation process (CAP) model (see Table 1 for summary). This model draws from the diffusion of innovations framework and emphasizes both top-down and

bottom-up approaches (Domenech-Rodriguez & Wieling, 2005). Stage models can be helpful in addressing the balance of adaptation and fidelity, which is one of the central dilemmas in the cultural adaptation field (Rodríguez et al., 2011). Specifically, amidst calls to modify interventions for cultural relevancy (e.g., Ortiz & Del Vecchio, 2013), some argue that interventions should first be delivered with minimal modification to examine the need for and prioritization of adaptation efforts (e.g., Kumpfer, Alvarado, Smith, & Bellamy, 2002). Thus, the CAP stage model allows for initial adaptations with minor modifications, followed by iterative modification and continued implementation/evaluation efforts as indicated.

Adapting the Collaborative Life Skills program for Spanish-speaking Latino families

To address gaps in empirically supported interventions for Spanish-speaking families, investigators of

Table 1. Stacked theoretical approach to adapting evidence-based interventions.

Ecological Validity Model Domains ^a	Language ^e	Culturally appropriate and syntonetic e.g., translate manual and materials into Spanish ^{c,d}	Cultural Adaptation Process Stages ^b	1. Setting the Stage ^e	<ul style="list-style-type: none"> • Develop collaborative relationships • Select framework and intervention to apply and adapt
	Persons ^e	Similarities and differences between clients and providers e.g., therapist–client cultural matching; ^c additional time for conversation ^d			
	Metaphors	Symbols, concepts, sayings and <i>dichos</i> e.g., cultural idioms and expressions incorporated ^{c,d}			
	Content	Cultural knowledge, values, and traditions; uniqueness of groups e.g., addition of monitoring session ^c		2. Initial Adaptations ^e	<ul style="list-style-type: none"> • Adapt manual and materials for target group • Select appropriate measures for evaluation • Conduct pilot testing with observation and feedback
	Concepts ^e	Treatment concepts consonant with culture and context e.g., extended family included in conceptualization ^c			
	Goals	Transmission of positive and adaptive cultural values e.g., values of <i>respeto</i> and <i>buena educacion</i> incorporated ^c			
	Methods ^e	Development and/or adaptation of treatment methods e.g., individual makeup sessions; ^c inclusion of incentives for retention; ^c removal of time-out strategy ^d		3. Adaptation Iterations	<ul style="list-style-type: none"> • Iteratively adapt manual/materials based on pilot work • Continue implementation and evaluation efforts
	Context	Consideration of changing contexts in assessment during treatment e.g., contextual topics, such as deportation fears, included in manual ^c			

^aBernal et al. (1995).

^bDomenech-Rodriguez and Wieling (2005).

^cAddressed in the Baumann et al. (2014) adaptation of Parent Management Training Oregon Model for Mexico.

^dAddressed in the Matos et al. (2006) adaptation of Parent Child Interaction Therapy for Puerto Rico.

^eAddressed in the current Collaborative Life Skills–Spanish adaptation.

a multicomponent school-home intervention referred to as the Collaborative Life Skills (CLS) program (Pfiffner, Rooney, Haack, Villodas, Delucchi, McBurnett, 2016) adapted CLS for Spanish-language implementation and evaluation. CLS is innovative in that it integrates three empirically supported ADHD treatments (behavioral parent training, behavioral classroom intervention, and child skills training) and is delivered by school mental health providers (SMHPs) in school settings to support accessibility and sustainability. The core program is followed by booster sessions into the subsequent school year and is coordinated to support generalization of gains across settings. Findings from a cluster-randomized trial of CLS with students exhibiting significant ADHD symptoms (excluding Spanish-language cohorts) revealed high levels of participant attendance and acceptability, as well as fidelity of implementation (Pfiffner, Rooney, Haack, Villodas, Delucchi, McBurnett, 2016; see Table 5 for summary of results). CLS has made a substantial contribution to the field in that it is the first school-based, collaborative school-home intervention for ADHD to demonstrate that students from schools randomly assigned to the intervention, relative to usual services, demonstrated significantly greater improvement on ADHD symptoms and organizational problems as rated by both parents/caregivers and teachers, oppositional defiant disorder (ODD) symptoms and social skills as rated by parents/caregivers, as well as clinically significant recovery into normative functioning ranges for academic competence as rated by teachers, with effects in the medium to large ranges. Subsequent CLS analysis also revealed that significant between group differences were sustained in the following school year for parent/caregiver reports of ADHD and ODD symptoms, organizational skills, and global functioning (Pfiffner, Rooney, Jiang, Haack, Beaulieu, & McBurnett, 2018). Of note, the original CLS trial sample was diverse and representative of the public school population in San Francisco, California. Specifically, 56 of the 135 youth participating in the CLS intervention had at least one parent/caregiver identifying as Latino. These Latino parent/caregivers were proficient in English and thus received the intervention in English without modification. However, the participating school district requested

a Spanish-language version of CLS to serve the growing population of Spanish-speaking-only families.

Our process of adapting CLS for Spanish-language implementation and evaluation can be conceptualized as a “stacked approach” incorporating the EVM and CAP theoretical models (Ferrer-Wreder, Sundell, & Mansoori, 2012; see Table 1 for summary). First, we established a bilingual/bicultural clinical research team to oversee the adaptation, implementation, and evaluation of CLS in Spanish (CLS-S), representing the first CAP stage of SETTING THE STAGE. For our first effort in the second CAP stage of INITIAL ADAPTATIONS, we made few changes to the CLS program for various reasons. To begin, based on recommendations to balance fidelity with adaptation (e.g., Kumpfer et al., 2002, as just reviewed), if substantial modifications to a treatment are made in the initial cultural adaptation effort and the adapted treatment shows promising results in the population of interest, it is impossible to determine if positive outcomes are result of the adaptation efforts, or if positive outcomes are a result of the original intervention and would have occurred without adaptation efforts. In addition, relative to the current study, several EVM domains are inherent to the original CLS program and thus we did not expect CLS modifications across all EVM domains would be necessary in the CLS-S adaptation. For example, CLS groups are held by a trusted school provider at no cost within the school setting, which addresses the EVM domain of METHODS by combatting barriers to participation and engagement. In addition, the description of CLS as a program to improve academic, social, and family functioning (rather than a treatment to improve child psychopathology) addresses the EVM domain of GOALS by aligning with Latino cultural values of *familismo*, *personalismo*, and *buena educacion*.

We did address the EVM domain of LANGUAGE by translating the CLS manuals and materials from English to Spanish following decentering principles. Decentering refers to translation in which the source and the target language are weighted with equal importance, maximizing meaning instead of literal language translation (van Widenfelt, Treffers, de Beurs, Siebelink, & Koudijs, 2005; Werner & Campbell, 1970). An iterative process was used to refine Spanish wording and phrases when comprehension difficulty was expressed or apparent. We also

addressed the EVM domain of PERSONS by engaging in friendly conversation with participants before and after group sessions, which we called *compartiendo vivencias*, or sharing experiences. The EVM domain of CONCEPTS was addressed by encouraging extended family members to participate and providing childcare for siblings if needed, as well as discussing issues of cultural sensitivity in the CLS-S initial provider training and weekly consultation (described in more detail in the Methods section). For example, providers were encouraged to use formal prepositional pronouns for participants to align with the cultural value of *respeto* (i.e., “usted” rather than “tú”), as well as avoiding stigmatizing language and emphasizing youth strengths to align with the cultural values of *personalismo* and *familismo*. Intervention METHODS for CLS-S remained identical to CLS with one exception: discussion of the time-out discipline strategy was omitted in CLS-S due to lack of cultural practice and relevancy in the Latino community.

Current study

The current study goals were twofold. First, we sought to investigate the acceptability and outcomes of CLS-S through implementation of a quasi-experimental controlled pilot study comparing the CLS-S with Business as Usual (BAU). We predicted that CLS-S would reveal high levels of fidelity and engagement comparable to those reported in the original CLS trial (Hypothesis 1), as measured by percentage of content covered and quality of competence by providers, as well as group attendance and adherence to treatment strategies by participants during the core intervention and maintenance periods. We also predicted that CLS-S would reveal significant outcomes as rated by parents/caregivers and teachers with effects comparable to those reported in the original CLS trial (Hypothesis 2), such that families assigned to CLS-S would demonstrate significantly greater improvements in ADHD symptoms, ODD symptoms, organization skills, and social skills, as well as significantly greater levels of recovery for academic functioning at posttreatment compared to families assigned to BAU. Next, we predicted that

CLS-S would reveal significant sustained outcomes as rated by parents/caregivers with effects comparable to those reported in the original CLS trial follow-up analysis (Hypothesis 3), such that families assigned to CLS-S would demonstrate significantly greater improvements in ADHD and ODD symptoms into the next school year compared to families assigned to BAU. Last, we sought to explore qualitative feedback from caregivers participating in CLS-S. We predicted that feedback would reveal meaningful themes supporting CLS-S process and outcome results, as well as suggestions for program improvement (Hypothesis 4).

Methods

Participant characteristics

Participants included 24 Latino children in Grades 2–5 across four public elementary schools ($n = 6$ children per school) in San Francisco, California. Each child had one Spanish-speaking parent/caregiver designated as the “primary parent” who completed all measures. Briefly, primary parent/caregivers were predominantly mothers with varying levels of education and employment status; two primary caregivers were fathers and one primary parent/caregiver was a grandmother. In both the original CLS intervention and CLS-S, all parents/caregivers living in the home were invited to participate; in CLS-S, 23 families had one parent/caregiver participate and one family had two parents/caregivers participate. Children were mostly boys ranging in age from 7 to 10. No significant differences emerged in demographic variables between CLS-S and BAU families. More complete information regarding parents/caregiver and child characteristics may be found in Table 2.

Participant recruitment and screening procedures

Children were referred for the study via school staff. Interested parent/caregivers signed a release of information allowing research staff to contact them and the child’s teacher for the study

Table 2. Parent/caregiver and child characteristics.

	Children in CLS-S ^a	Children in BAU ^b
Age (<i>M</i> , <i>SD</i> in Years)	7.83, 0.94	8.50, 0.80
WASI FSIQ (<i>M</i> , <i>SD</i>)	91.82, 10.52	96.64, 14.17
Male (%)	75.0%	75.0%
Grade (%)		
2	50.0%	16.7%
3	25.0%	50.0%
4	25.0%	33.3%
On Medication at Baseline (%)	0.0%	8.3%
Single-Parent Household (%)	17.7%	33.3%
ADHD Presentation (%) ^c		
Predominantly Inattentive	41.7%	33.3%
Predominantly Hyperactive-Impulsive	0.0%	0.0%
Combined	58.3%	66.7%
ODD	41.7%	58.3%
	Primary Caregivers in CLS-S ^a	Primary Caregivers in BAU ^b
Relation to Child (%)		
Biological Mother	75.0%	100.0%
Biological Father	16.7%	0.0%
Biological Grandmother	8.3%	0.0%
Education (%)		
8th Grade or Less	33.3%	8.3%
Some High School	16.7%	16.7%
High School Graduate or GED	41.7%	33.3%
Some College	8.3%	0.0%
College Graduate or Advanced Degree	0.0%	41.7%
Employment Status (%)		
Working Full Time	58.3%	41.7%
Working Part Time	0.0%	25.0%
Unemployed	16.6%	16.7%
Stay-at-Home Parent/Caregiver	8.3%	8.3%
Other or Prefer Not to Report	16.6%	8.3%
Total Annual Household Income (%)		
Less than \$10,000	41.7%	16.7%
\$10,000–\$20,000	25.0%	25.0%
\$20,001–\$30,000	16.7%	8.3%
\$30,001–\$40,000	8.3%	16.7%
\$40,001 or More	8.3%	25.0%
Other or Prefer Not to Report	0.0%	8.3%

Note. *N* = 24. CLS-S = Collaborative Life Skills program implemented in Spanish; BAU = business as usual; WASI FSIQ = Wechsler Abbreviated Scale of Intelligence, Full-Scale Intelligence Quotient; ADHD = attention deficit/hyperactivity disorder; ODD = oppositional defiant disorder; GED = General Education Development Credential.

^a*n* = 12.

^b*n* = 12.

^cADHD presentation and ODD diagnosis based on presence of symptoms rated by parents/caregivers or teachers on the Child Symptom Inventory.

screening. A Spanish-speaking member of the research team conducted screenings with each interested parent/caregiver and corresponding teacher via telephone or in person (based on participant preferences). The screenings served two purposes: (a) provide potential participants with a brief overview of the CLS-S program goals, aspects, and time line, and (b) gather initial information about family demographics, child medication status, and the level of perceived ADHD symptoms and related impairment. If parents/caregivers and teachers

described ADHD symptoms and impairment consistent with eligibility criteria (see next), researchers proceeded to the informed consent procedure with each parent/caregiver and teacher, as well as the assent procedure with each child.

Participant eligibility criteria

To participate, children were required to demonstrate at least six attention symptoms and/or at least six hyperactive/impulsive symptoms endorsed on the

Child Symptom Inventory (CSI; Gradow & Sprafkin, 2002) by the parent/caregiver and/or teacher as occurring often or very often; cross-situational impairment (home and school), documented as a score of at least 3 in at least one domain of functioning on parent and teacher Impairment Rating Scales (Fabiano et al., 2006); Full-Scale Intelligence Quotient equivalent higher than 79 on the Wechsler Abbreviated Scale of Intelligence (Wechsler, 2011); a Spanish-speaking parent/caregiver available to participate in the intervention; and a primary classroom teacher who agreed to participate in the classroom component.

Recruitment

School staff referred 26 youth for CLS-S. Of these, one family was not interested, and one family was interested but described barriers preventing participation; 24 youth met entry criteria and were enrolled in the trial. Teachers could implement the program with up to two students; in CLS-S, six teachers participated with two students, and 12 teachers participated with one student. Following CLS-S intervention participation, parents/caregivers were invited to provide qualitative feedback about their experiences; 18 parents/caregivers volunteered to participate in a focus group or interview based on their interest and availability.

SMHP background

The SMHPs at participating schools implemented study procedures as part of their work responsibilities. SMHPs received extended calendar pay, at a rate

similar to their district salary, for attending training that occurred outside their normal working hours regardless of their treatment group assignment to CLS-S or BAU. All SMHPs at the four participating schools were full-time master's-level mental health clinicians. The SMHPs were trained individually in the intervention prior to delivery (see Table 3 for time line). Of note, one CLS-S school had implemented CLS in English the previous semester, such that the SMHP and two of the four teachers already were trained in and had implemented CLS in English; two of the four teachers in this school were naive to the intervention. The other CLS-S school was naive to the CLS intervention. Important to note, both of the BAU schools were naive to the CLS intervention; however, one of the BAU SMHPs had been trained in and implemented the CLS intervention in English at a different school. This SMHP was instructed to refrain from using the CLS intervention strategies at the BAU school, and she confirmed that she did so, indicating that there was no contagion of CLS strategies during the BAU waitlist condition period.

Design

Four schools were selected to receive CLS-S during Years 2–4 of the 4-year larger CLS RCT (see Table 3). Two of the four schools (student $n = 12$) were assigned to receive CLS-S, and two schools (student $n = 12$) were assigned to BAU. Randomization of schools to treatment arms was not possible in the current study due to the schedules of participating Spanish-speaking SMHPs; thus, CLS-S versus BAU school assignment was done based on logistical

Table 3. Time line of CLS-S in context of the 4-year original CLS trial.

	Cohort 1 ^a	Cohort 2 ^a
Recruitment, Informed Consent, and Baseline Data Collection for all Families and Teachers	January – February Year 2	January – February Year 3
Assignment of 1 School = CLS-S and 1 School = BAU; Training for CLS-S SMHP	February Year 2	February Year 3
Core Intervention Period for CLS-S Families and Teachers	March – May Year 2 (~12 weeks)	March – May Year 3 (~12 weeks)
Post Data Collection for all Families and Teachers	May Year 2	May Year 3
Maintenance Period for CLS-S Families and Teachers	June Year 2 – November Year 2 (~20 weeks)	June Year 3 – November Year 3 (~20 weeks)
Follow-Up Data Collection for all Families and Teachers	November Year 2	November Year 3
Qualitative Interview/Focus Group With Interested CLS-S Families	November Year 2	November Year 3
Training for BAU SMHP	November Year 2	November Year 3
Intervention Provided to BAU Families and Teachers	November Year 2 – February Year 3 (~12 weeks)	November Year 2 – February Year 4 (~12 weeks)
Qualitative Interview/Focus Group With Interested BAU Families	February Year 3	February Year 4

Note. CLS-S = Collaborative Life Skills program implemented in Spanish; BAU = business as usual; SMHP = school mental health provider.

^a $n = 12$ families across $n = 2$ schools ($n = 6$ /school).

needs of the providers. Examination of school characteristics reveals that a substantial proportion of youth is classified by the district as English-language learners and socioeconomically disadvantaged across sites with no apparent discrepancies between schools assigned to CLS-S versus BAU (School Accountability Report Cards in San Francisco Unified School District, 2017).

Treatment conditions

Collaborative Life Skills program in Spanish

The CLS-S included three manualized components: (a) ten 60-min weekly parent/caregiver group meetings; (b) nine 40-min weekly child group meetings; and (c) teacher consultation, which included one 60-min orientation meeting, one 60-min troubleshooting meeting, and at least one 30-min daily report card meeting with the parent/caregiver, child, teacher, and SMHP. All groups and meetings occurred at the school site during the school day and were led by the SMHP. Please see (Piffner, Kaiser, Burner, Zalecki, Rooney, Setty, & McBurnett, 2011) for description of the CLS iterative development process and theoretical rationale. As just described, the CLS-S manual and materials are identical to CLS with two exceptions: (a) The CLS-S parent/caregiver groups, daily report card meetings, and student groups¹ are implemented in Spanish, and (b) discussion of the time-out strategy is omitted in CLS-S.

Parent/caregiver component. The curriculum for the parent/caregiver component focused on effective strategies for managing children with attention and/or behavior problems. Strategies included positive consequences such as rewards and praise, negative consequences such as ignoring and removal of privileges, establishing daily routines, using effective instructions and commands, parent/caregiver stress management, and organizing the home to promote independence. Each parent/caregiver group began with a review and troubleshooting of homework assigned at the previous session. In addition to presentation of new parent/caregiver skill content, skills covered in the

child groups (see next) were reviewed and methods were taught to promote and reinforce skill generalization at home. Groups occurred during the school day, often after dropoff for parent/caregiver convenience.

Child component. The curriculum for the child component focused on skills for organization (e.g., backpack clean-outs, following a routine) and social skills (e.g., good sportsmanship, assertion, conversation skills, dealing with teasing). SMHPs targeted skill knowledge deficits *and* skill implementation deficits through didactic instruction, modeling, behavioral rehearsal, corrective feedback, and in vivo practice, all in the context of a reward-based contingency management program. Self-management of attention and alertness was targeted with group-reinforced attention checks (Pelham & Hoza, 1996). To encourage skill generalization, children brought in points or “stars” earned from home and school challenges in exchange for praise and group-based rewards (i.e., two celebratory parties: a midgroup party with caregivers and a final graduation party with caregivers and teachers). Groups occurred during the school day and were scheduled by the SMHPs based on the collective teachers’ input regarding the most suitable day and time for children to attend group, usually occurring during a nonacademic period.

Classroom component. The classroom component curriculum began with a 60-min teacher orientation meeting, during which teachers were provided with an overview of attention/behavior problems and the use of a school-home daily report card. Teachers selected two or three behavior goals tailored for each individual child, which were then discussed with the parent/caregiver and child during a 30-min meeting. Goal behaviors could focus on academic targets (e.g., gets started on work right away, completes work with accuracy) or social/behavioral targets (e.g., keeps hands and feet to self, asks for help when needed). Teachers rated each goal behavior at three time points during each school day, which corresponded to points or “stars” to be exchanged for rewards at home

¹Student groups may be implemented in Spanish or English depending on the primary language of the participating youth. For the current study, one CLS-S school implemented the student groups in Spanish and one CLS-S school implemented the student group in English.

and in the child group. Teachers participated in a troubleshooting meeting at the midpoint of the program and additional meetings to support or refine the daily report card were held as needed. Skills taught in the child group were shared with teachers weekly to promote cross-setting reinforcement and generalization.

Treatment maintenance procedures. After the core intervention period, SMHPs met with parents/caregivers and teachers to review program progress and troubleshoot as needed. At the beginning of the next school year, SMHPs met once with participating students' previous and new teachers as a group (1 hr) to design a school-based program for the current year (e.g., homework plan, daily report card). This allowed teachers new to CLS-S to receive support and training in CLS-S strategies (e.g., daily report card) from fellow teachers. The SMHP conducted one meeting (if needed) attended by parent, student, and the student's teacher to review the daily report card and homework plan. Booster groups (one for parents/caregivers and one for children) also were offered during the new school year by the SMHP.

Business as Usual

Families assigned to BAU received school and community services as usual. After the follow-up measures were completed, families assigned to BAU were invited to receive the CLS-S program. All but one BAU family (who had moved schools) chose to participate in the intervention.

Provider training

SMHPs attended an initial individual full-day training session and weekly individual consultation meetings with the CLS-S clinical research team to review manual content, view session videotapes, role-play key content delivery, and troubleshoot emerging problems. Issues of cultural sensitivity were discussed, and corrections to the Spanish wording/phrases were made to the manuals and handouts as needed, aligning with the EVM categories of LANGUAGE and CONCEPTS. At least one member of the CLS-S clinical research team attended each session to complete fidelity and engagement measurements and to answer questions or provide modeling of the curriculum if needed. As previously

mentioned, CLS-S and BAU SMHPs received analogous support and monetary compensation for training activities completed outside of the salaried workday.

Procedure

As seen in Table 3, parents/caregivers and teachers completed a series of questionnaires, including measures of child behavior and parenting/family functioning, at three time points regardless of treatment group assignment: prior to group assignment (i.e., baseline), immediately following the core CLS-S intervention period (i.e., posttreatment), and early in the following school year following the maintenance period (i.e., follow-up). The core intervention period lasted approximately 12 weeks and the maintenance period lasted approximately 20 weeks. None of the 24 participants dropped out of the trial prior to follow-up. Participants provided informed consent and children provided assent. Study procedures were approved by the Committee on Human Research at the participating university (University of California San Francisco). Parents/caregivers completed Spanish-language questionnaires; teachers completed English-language questionnaires. All questionnaires were completed at each time point (i.e., baseline, post, and follow-up) with the exception of the demographic form, which only was completed at baseline. Each rater (i.e., primary parent/caregiver and teacher) was compensated with \$50 for each questionnaire packet (i.e., \$150 total for baseline, post, and follow-up), and no other monetary compensation was provided for participation. Two schools participated during one academic year and the other two participated in the following academic year.

Semistructured focus groups/interviews were conducted after parents/caregivers had participated in the CLS-S program and completed follow-up measures. Parents/caregivers were asked to participate in a focus group; individual interviews were conducted in lieu of focus groups with those who could not attend the focus groups or those who preferred to share feedback privately. Parents/caregivers provided consent to participate and be video-recorded. Focus groups and interviews were moderated by two members of the bilingual/bicultural clinical research team: one native Spanish speaker and one native English speaker.

Study objectives were described prior to the focus groups and interviews; specifically, it was explained that researchers hoped to obtain information about help-seeking for attention/behavior concerns and recommendations for implementing the CLS program with Latino families. The focus groups and interviews included questions derived from the Experience with CLS Qualitative Outline designed for this study. The Experiences with CLS Qualitative Outline was based on the four stages of the ADHD Help-Seeking Behavior Model for Ethnic Minorities: Problem Recognition, Decision to Seek Help, Service Selection, and Service Utilization (Eraldi et al., 2006). Relevant to the current study, parents/caregivers were asked to describe aspects of CLS-S that were appreciated, as well as areas for improvement (see Table 4 for questions and prompts). One team member served as the lead moderator and asked each question in order; both team members provided prompts and question clarification as needed. Focus groups contained three to four parent/caregivers who had participated together in the CLS-S groups, and each lasted

between 19 and 48 min (average = 32 min), with length depending on the amount of detail provided by the respondents; all focus groups were conducted in Spanish. Individual interviews ranged from 12 to 40 min (average = 24 min); all but one was conducted in Spanish.

Measures

Fidelity and engagement measurements

Members of the CLS-S clinical research team rated the SMHP's fidelity to the core intervention based on session content (coverage of each item rated 0 = *not at all* to 1 = *fully*) and quality of competence (rated 1 = *not at all* to 5 = *great deal*). Teacher fidelity included the number of days the daily report card was completed (based on a count of completed forms). Parent/caregiver implementation of strategies taught during groups was measured through parent/caregiver signatures of review on the daily report card and weekly ratings from the CLS-S clinical research team of parent/caregiver adherence to the treatment

Table 4. Service utilization qualitative questions and prompts.

Questions (in Order of Outline)	Prompts
<ul style="list-style-type: none"> ● How was your experience with the PROGRAM OVERALL? 	<ul style="list-style-type: none"> ● What are your thoughts about the three aspects (parent groups, child groups, and school consultation) being held at the school? ● What are your thoughts about the length of the program ● Was there anything that made it difficult to participate? ● Is there anything you would suggest we change to help families participate?
<ul style="list-style-type: none"> ● How was your experience with the School Social Worker and the clinical research PERSONNEL? 	<ul style="list-style-type: none"> ● For example, some family members find it easier to participate in the program if they feel: comfortable, respected, and understood by the staff. What are your thoughts about this? ● How was your relationship with the School Social Worker and did it affect your participation?
<ul style="list-style-type: none"> ● How was your experience with the SCHOOL CONSULTATION/ Classroom Challenge Binders aspect of the program? 	<ul style="list-style-type: none"> ● What did you think worked well? ● What was difficult or did not go well? ● Is there anything you would change?
<ul style="list-style-type: none"> ● How was your experience with the CHILD SKILLS aspect of the program? [concurrent presentation of child skills group topic outline] 	<ul style="list-style-type: none"> ● What did you think worked well? ● What was difficult or did not go well? ● Is there anything you would change?
<ul style="list-style-type: none"> ● How was your experience with the PARENT/CAREGIVER SKILLS aspect of the program? [concurrent presentation of parent/caregiver skills group topic outline] 	<ul style="list-style-type: none"> ● What did you think worked well? ● What was difficult or did not go well? ● Is there anything you would change?
<ul style="list-style-type: none"> ● Is there ANYTHING ELSE about the program you would like to share that we haven't asked you? 	

program (1 = *not at all* to 5 = *great deal*). Parent/caregiver and student group attendance was recorded weekly in vivo by the CLS-S clinical research team.

During the maintenance period, parent/caregiver and student attendance was recorded for each group booster session and teacher orientation meeting. Teacher use and parent/caregiver review of the daily report card was measured by a count of completed forms, as well as parent/caregiver ratings. Parent/caregiver implementation of strategies taught during the core intervention and reviewed during booster group sessions was measured through self-ratings of adherence to skills taught in the treatment program (1 = *not at all* to 5 = *everyday*).

Demographics

The CLS-S clinical research team conducted screening interviews with participating caregivers and teachers to gather information about the family demographics (e.g., income, parent/caregiver education level), family structure, the child's medication status, and so on (see the Methods section for procedure).

ADHD and ODD symptoms

Items from the CSI-4 (Gadow & Sprafkin, 1994), completed by parents/caregivers and teachers, correspond to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; American Psychiatric Association, 1994) ADHD and ODD symptoms and are rated on a 4-point scale from 0 (*never*) to 3 (*very often*). Symptoms are considered to be present when they are rated as occurring *often* or *very often* (i.e., 2 or 3 on the 4-point scale). The ADHD subscale (Category A on the measure) comprises nine inattention items and nine hyperactive/impulsive items; the ODD subscale (Category B on the measure) comprises eight items. Each subscale can be scored in terms of symptom count (i.e., number of items endorsed as present) or severity (i.e., mean of the items' 4-point scale rating). The English and Spanish versions of the CSI-4 has normative data, acceptable test-retest reliability, and acceptable predictive validity for categorical diagnosis of ADHD and ODD (Gadow & Sprafkin, 1997). Cronbach's alpha levels in our sample were high at baseline for the ADHD Symptom Severity subscale (i.e., $\alpha = 0.93$ for parents/caregivers and $\alpha = 0.86$ for teachers) and for the ODD Symptom Severity subscale (i.e.,

$\alpha = 0.88$ for parents/caregivers and $\alpha = 0.87$ for teachers).

Social skills

Teachers and parents/caregivers completed the Social Skills Improvement System rating scales (SSIS; Gresham & Elliot, 2008). The English and Spanish versions of the SSIS have excellent psychometric properties, including high levels of internal consistency for the caregiver and teacher versions, as well as convergent and discriminant validity (see Gresham & Elliot, 2008). We analyzed the Total Social Skills subscale, which includes 46 items reflecting communication, cooperation, assertion, responsibility, empathy, and self-control skills. Cronbach's alpha levels in our sample were high at baseline (i.e., $\alpha = 0.90$ for both parents/caregivers and teachers).

Organizational skills

Teachers completed the Children's Organizational Skills Scale (Abikoff & Gallagher, 2009). Items are rated on a 4-point scale from 1 (*hardly ever/never*) to 4 (*just about all the time*); those assessing organizational skills, management of materials/supplies, and task planning skills (teacher = 35 items) are totaled for analyses. The teacher version has excellent psychometric properties, including high internal consistency ($\alpha = .98$ and $.97$, respectively); test-retest reliability ($r_s = .99$ and $.94$, respectively); and evidence of structural, convergent, and discriminant validity. The Children's Organizational Skills Scale assesses organizational skills pertinent to successful academic functioning. To date, no Spanish-language version has been validated; thus, parent/caregiver-rated organizational skills were not examined in the current study. Cronbach's alpha levels in our sample were high at baseline for teachers (i.e., $\alpha = 0.93$).

Academic functioning

The Academic Competence scale on the teacher version of the SSIS was used to measure academic functioning. This scale measures reading and math performance, academic motivation, and general cognitive functioning. Each item is rated on a 5-point scale relative to students in the same class (lowest 10% to highest 10%). This scale has excellent psychometric properties, including high

internal consistency and test–retest reliability and evidence for convergent and discriminant validity. The total academic competence standard score (sex specific) was analyzed. The standard score was dichotomized at 85 (with scores at 85 or lower representing below average and scores greater than 85 representing at least average) to evaluate for treatment effects on the percentage of students functioning within at least the average range. Cronbach’s alpha levels in our sample were high at baseline for teachers (i.e., $\alpha = 0.91$).

Data analytic plan

We conducted CLS-S process analyses using IBM SPSS Version 23 (IBM SPSS, 2015) to examine descriptive statistics (i.e., means and standard deviations of provider fidelity and participant engagement). We conducted CLS-S outcome analyses using SAS PROC GENMOD (SAS Institute, Cary, NC) by estimating and testing linear models of mean posttest and follow-up scores between groups using a mixed-effects model to account for clustering by school (all two-tailed). In addition to intervention group, models included the baseline level of the outcome measurement and parent education (given apparent but nonsignificant differences in parent/caregiver education between CLS-S and BAU conditions). Effect sizes were based on group differences in estimated means at posttreatment and follow-up (adjusted for baseline score) using Cohen’s *d*. Consistent with the main CLS trial, we also examined clinical significance of academic functioning by reporting the percentage of cases demonstrating recovery, with recovery evaluated as the percentage of children outside the normative range at baseline (i.e., more than 1 *SD* below the sex-specific population mean) moving to within the normative range after treatment. Comparison of recovery between CLS-S and BAU were examined using Pearson’s chi-square test of independence.

We coded and analyzed qualitative feedback using Transana Multiuser Version 3.2 (Woods & Fassnacht, 2017). First, we created transcriptions synced with video footage of the interviews. Next, we developed a hierarchical coding system based on recurrent concepts from interviews/focus groups and theoretical literature using Thematic

Analysis Principles (Creswell & Clark, 2007). Two members of the clinical research team (one native English-speaker and one native Spanish-speaker) independently coded the transcriptions using the hierarchical system; the team discussed discrepancies, and a third party was consulted if needed to resolve discrepancies. The team of coders collaboratively uncovered recurrent themes, and the coding system was updated iteratively. Once codes were finalized, we generated collection reports to examine the frequency in which codes were discussed by each parent/caregiver.

Results

Hypothesis 1

Our first hypothesis was that CLS-S would reveal high levels of fidelity and engagement comparable to those reported in the original CLS trial, as measured by percentage of content covered and quality of competence by providers, as well as group attendance and adherence to treatment strategies by participants. As seen in Table 5, fidelity for CLS-S was high, and the observed values were within the range of fidelity reported in the original CLS trial.

During the core intervention period, providers at least partially covered 91% of parent/caregiver session elements and 99% of child session elements with high levels of competence ($M = 4.94$ for caregiver group and 4.95 for child group out of 5). Clinician observer ratings of caregiver overall adherence to the program averaged 4.7 out of 5. Parent/caregiver attendance at groups averaged above 88% (range = 40%–100%). Child attendance averaged above 90% (range = 67%–100%). All students had at least one teacher/family meeting to establish the daily report card. Teachers used the daily report card during the core intervention period an average of more than 4 days out of 5 ($M = 4.6$), and parent/caregiver review signatures were obtained on the majority of the daily report cards collected (67%).

During the maintenance period, daily report card meetings were held based on assessed needs of student per teacher, SMHP, and parent/caregiver. More than half (58%) of students had a meeting for daily report card implementation in the new school year. At follow-up, the majority (67%) of parent/caregivers reported reviewing the daily report cards, on average,

Table 5. Process of CLS-S compared to original CLS intervention.

	Rater	CLS-S	CLS
Core Intervention Fidelity Measure			
Parent/Caregiver Group Content	O	91%, high competence (4.94 of 5)	94%, high competence (4.40 of 5)
Student Group Content	O	99%, high competence (4.95 of 5)	97%, high competence (4.80 of 5)
Parent/Caregiver Adherence to Strategies	O	4.7 of 5	4.1 of 5
Parent/Caregiver–Child–Teacher Meeting	F	100% at least 1	100% at least 1
Daily Report Card Use by Teacher	F	4.6 of 5 days	4.1 of 5 days
Daily Report Card Parent/Caregiver Review	F	67% of daily report cards	70% of daily report cards
Parent/Caregiver Group Attendance	F	88% (range = 40%–100%)	79% (range = 0%–100%)
Child Group Attendance	F	90% (range = 67%–100%)	92% (range = 67%–100%)
Maintenance Fidelity Measure			
Students Using Daily Report Card in New School Year	F	58%	61%
Parent/Caregivers Reviewing Daily Report Card at least Most Days	P	67%	67%
Parent/Caregivers Adhering to Strategies at least Most Days	P	67%	75%
Parent/Caregiver Booster Group Attendance	F	50% at both schools	60% (range = 0%–100% of parents/caregivers)
Child Booster Group Attendance	F	100% at both schools	93% (range = 67%–100% of students)

Note. O = Observer from Collaborative Life Skills program implemented in Spanish (CLS-S) Clinical Research Team; F = frequency count; P = parent/caregiver rating.

at least half the time; in addition, the majority (67%) of parents/caregivers reported using strategies taught during the parent/caregiver group to address home behaviors, on average, at least half the time. In both CLS-S schools, half of the parents/caregivers and all of the students attended the booster groups held early in the fall of the new school year.

Hypothesis 2

Our second hypothesis was that CLS-S would reveal significant outcomes with effects comparable to those reported in the original CLS trial, such that families assigned to CLS-S would demonstrate significantly greater improvements in ADHD symptoms, ODD symptoms, organization skills, and social skills, as well as significantly greater levels of recovery for academic functioning, compared to families assigned to BAU. As seen in Table 6, significant CLS-S treatment effects for most outcomes were found at posttreatment controlling for baseline functioning. Specifically, significant treatment effects were found at posttreatment for ADHD symptom severity per parent/caregiver, $F(1, 33.2) = 36.72, p < .001$, and teacher report, $F(1, 30.7) = 17.30, p < .001$. Significant treatment effects also were found at posttreatment for ODD symptom severity per parent/caregiver report, $F(1, 33.4) = 44.47, p < .001$, and teacher report, $F(1,$

$24.8) = 5.51, p = .027$. CLS-S treatment effects for social skills were significant per parent/caregiver report, $F(1, 23) = 6.73, p = .016$; treatment effects for social skills were not significant per teacher report in the current CLS-S sample or in the original CLS trial. Treatment effects for organizational skills were significant per teacher report, $F(1, 26.6) = 17.63, p < .001$. When scores of academic competence were dichotomized at a standard score of 85, recovery from below to within or above the average range was 25% in CLS-S (i.e., three children of 12) compared with 0% BAU (i.e., zero children of 12); this difference approached significance ($\chi^2 = 3.43, p = .064$). As seen in Table 6 (see the footnote), these outcomes are similar to those presented in the original CLS RCT with English-speaking families. Of interest, results of post hoc analyses comparing RCT outcomes for Latino and non-Latino families in the original CLS intervention, as well as current study outcomes for Spanish-speaking Latinos in the CLS-S intervention, did not appear to differ. Specifically, compared to youth receiving usual services, youth assigned to the intervention in all three groups showed statistically significant improvements in ADHD symptoms and organizational problems as rated by both caregivers/parents and teachers, as well as ODD symptoms and social skills as rated by parents/caregivers, with effect sizes in similar ranges.

Table 6. Outcomes for CLS-S versus BAU compared to the original CLS trial.

Outcome Measure: Measure & Rater	CLS-S				BAU				Post Comparisons		Follow-Up Comparisons	
	Baseline <i>M (SD)</i>	Follow-Up <i>M (SD)</i>	Baseline <i>M (SD)</i>	Follow-Up <i>M (SD)</i>	Baseline <i>M (SD)</i>	Follow-Up <i>M (SD)</i>	Baseline <i>M (SD)</i>	Follow-Up <i>M (SD)</i>	<i>p</i>	<i>d</i>	<i>p</i>	<i>d</i>
		Post <i>M (SD)</i>		Post <i>M (SD)</i>		Post <i>M (SD)</i>		Post <i>M (SD)</i>				
ADHD Severity (CSI)	23.29 (12.89)	14.58 (7.50)	11.42 (2.38)	32.83 (14.06)	27.33 (10.91)	32.83 (14.06)	27.33 (10.91)	32.83 (14.06)	< .001	1.00	< .001	0.84
	36.73 (9.39)	24.00 (6.32)	20.00 (9.35)	34.58 (9.30)	24.50 (12.98)	34.58 (9.30)	24.50 (12.98)	34.58 (9.30)	< .001	0.63	.710	-0.01
ODD Severity (CSI)	7.83 (6.01)	4.92 (4.54)	4.75 (3.55)	11.42 (5.82)	10.83 (4.94)	11.42 (5.82)	10.83 (4.94)	11.42 (5.82)	< .001	0.58	.001	0.34
	8.55 (5.59)	5.91 (4.01)	3.09 (2.81)	5.58 (3.96)	4.08 (4.40)	5.58 (3.96)	4.08 (4.40)	5.58 (3.96)	.027	0.21	.688	-0.02
Social Skills (SSIS)	98.00 (18.90)	113.08 (12.35)	109.50 (12.85)	95.17 (17.21)	92.80 (13.32)	95.17 (17.21)	92.80 (13.32)	95.17 (17.21)	.016	-0.37	.182	-0.11
	77.00 (12.30)	81.33 (9.58)	84.58 (9.77)	78.58 (9.42)	89.58 (20.90)	78.58 (9.42)	89.58 (20.90)	78.58 (9.42)	.913	0.02	.594	0.09
Organization Problems (COSS)	105.09 (15.67)	96.50 (17.60)	87.27 (20.36)	106.08 (15.19)	86.75 (21.71)	106.08 (15.19)	86.75 (21.71)	106.08 (15.19)	< .001	0.45	.478	-0.29
Academic Competence (SSIS)	Baseline %	Post %	Follow-up %	Baseline %	Follow-up %	Post %	Follow-up %	Post %	<i>p</i>	OR	<i>p</i>	OR
At or Above Average	16.7%	41.7%	33.3%	58.3%	66.7%	41.7%	66.7%	41.7%	.064	0.19	.537	0.45

Note. *N* = 24. CLS-S = Collaborative Life Skills program implemented in Spanish; BAU = business as usual; *d* = Cohen's *d*; ADHD = attention deficit/hyperactivity disorder; CSI = Child Symptom Inventory (Gadow & Sprafkin, 1994); P = parent/caregiver; T = teacher; ODD = oppositional defiant disorder; SSIS = Social Skills Improvement System (Gresham & Elliot, 2008); COSS = Children's Organizational Skills Scale (Abikoff & Gallagher, 2009); OR = odds ratio.

*Indicates significant posttreatment outcome in original CLS trial.

†Indicates significant follow-up outcome in original CLS trial.

Hypothesis 3

Our third hypothesis that CLS-S would reveal significant sustained outcomes comparable to the original trial, such that families assigned to CLS-S would demonstrate significantly greater improvements into the next school year in ADHD symptoms and ODD symptoms as rated by parents/caregivers compared to families assigned to BAU. As seen in Table 6, significant CLS-S treatment effects were found at follow-up controlling for baseline functioning for ADHD symptom severity per parent/caregiver report, $F(1, 44.6) = 47.40, p < .001$.

Significant treatment effects also were found at follow-up for ODD symptom severity per parent/caregiver report, $F(1, 26.6) = 13.65, p = .001$. Academic competence recovery at follow-up from below to within or above the average range were 17% in CLS-S (i.e., two children of 12) compared with 8% BAU (i.e., one child of 12); this difference was not significant. Significant between-group differences were not observed in teacher ratings. However, within-group analyses between posttreatment and follow-up were not significant for any outcomes rated by parents/caregivers or teachers for children in the CLS-S group ($p > .07$), suggesting that the significant gains observed in CLS-S at posttreatment were maintained at follow-up.

Of interest, several within-group analyses from post to follow-up are significant or trending toward significant for students assigned to BAU, indicating improvement across many outcomes in the next school year for children assigned to school services as usual. Specifically, improvements for BAU children on ADHD severity from post to follow-up were trending toward significant when rated by parents/caregivers, $t(11) = 2.00, p = .07$, and significant when rated by teachers, $t(11) = 2.72, p < .05$. Improvements for BAU children on social skills from post to follow-up were significant when rated by teachers, $t(11) = -2.42, p < .05$, but not parents/caregivers, $t(11) = 1.03, p = .32$. Improvements for BAU children from post to follow-up were significant for ODD severity rated by teachers, $t(9) = 0.50, p < .05$, and organizational skills rated by teachers, $t(11) = 2.89, p < .05$. Improvements for BAU children from post to follow-up were not significant in the domains of ODD severity rated by parents/caregivers, $t(11) = 1.03, p = .32$, or academic skills rated by teachers, $t(8) = -1.04, p = .32$.

Hypothesis 4

Our fourth hypothesis was that feedback from participants would reveal meaningful themes supporting CLS-S process and outcome results, as well as suggestions for program improvement. As seen in Tables 7 and 8, several meaningful themes emerged from Spanish-speaking parents/caregivers regarding CLS-S process and outcomes. Regarding the CLS process, the majority of participating parents/caregivers described appreciating the collaborative design and supportive nature of CLS-S (89%), the rapport with staff (89%), and the ease of CLS-S employment (56%). The majority also described that they appreciated (83%) and benefited (78%) from CLS-S. Some participating parents/caregivers described that consistency and follow-through are important for the success of CLS-S (44%); others described appreciating the focus on behavioral skills in CLS-S (22%).

Regarding CLS outcomes, the majority of participating parents/caregivers described improvements in functional impairment (94%), and some described improvements in ADHD symptoms (39%). The most common improvements described were in the domains of home impairment (94%), followed by academic impairment (50%) and social/emotional impairment (44%); some parents/caregivers (22%) described improvement in inattentive symptoms, and few (11%) described improvement in hyperactive/impulsive symptoms.

Discussion

Results from this quasi-experimental controlled pilot study suggest that CLS, a school-home behavioral treatment for youth with significant ADHD symptoms and impairment, can be successfully implemented in Spanish, as evidenced by high levels of CLS-S provider fidelity and participant engagement. Results also suggest promising outcomes from CLS-S, as evidenced by substantial improvement in ADHD and ODD symptoms recognized by parents/caregivers and teachers, social skills recognized by parent/caregivers, and organization problems recognized by teachers, for treated families compared to families receiving school services as usual. Furthermore, results

Table 7. Emerging themes regarding CLS-S process described in qualitative feedback.

Most Commonly Codes Endorsed	<i>n</i> (%)	Example Quote ^a
Collaborative Design/Support Appreciated (<i>n</i> = 16; 89%)		
Parent/Caregiver Support/Shared Experience Appreciated	15 (83%)	<ul style="list-style-type: none"> • ... for me the big component was the other members of the group, to listen, to know them, to know that we are not alone, something that was easy for me maybe is a little difficult for another, and we are giving support to each other.
Communication with Teacher Appreciated	8 (44%)	<ul style="list-style-type: none"> • We are able to communicate and see each daily progress. ... But I really like that part because, you know, it helps us see on a daily basis, "what did you do wrong, or not do wrong, but what did you miss today? Let's do better tomorrow.
Rapport with Staff Appreciated (<i>n</i> = 16; 89%)		
Overall Relationship with Staff Appreciated	5 (28%)	<ul style="list-style-type: none"> • I always had a good relationship with [the School Social Worker] and with [the CLS-S clinical research team].
Staff Demonstrate Attention/Interest to Parents	3 (17%)	<ul style="list-style-type: none"> • Yes, that made it really nice. That you can participate and it's beautiful that everybody gives each other attention. This is what I saw, you make us all feel important.
Appreciated/Satisfied with Program (<i>n</i> = 15; 83%)		
Child Likes Attending Student Group	11 (61%)	<ul style="list-style-type: none"> • My child always was excited when he had the child meetings. He said it liked a lot and he learned a lot.
Parent/Caregiver Likes Program	10 (56%)	<ul style="list-style-type: none"> • I have never participated in a program, so, for me it was a good program. It is a good program.
Program Is Helpful/Beneficial (<i>n</i> = 14; 78%)		
Program Helped Family	8 (44%)	<ul style="list-style-type: none"> • ... and thank God that this year, this group has helped me to find solutions.
Child Learned a Lot	4 (22%)	<ul style="list-style-type: none"> • They did it, between all the fun, they showed him what was right.
Program Easy to Employ (<i>n</i> = 10; 56%)		
Program was Feasible	7 (39%)	<ul style="list-style-type: none"> • ... for me the schedules were comfortable, because a came to drop my children off here and then I could stay for the program.
Examples in Parent/Caregiver Group were Appreciated	4 (22%)	<ul style="list-style-type: none"> • ... and with concrete examples we can associate/apply it easily
Consistency and Follow-Through Important (<i>n</i> = 8; 44%)		
Boosters/Follow-Up Desired	5 (28%)	<ul style="list-style-type: none"> • ... you can come next year, so that you can at least do two follow ups, that we the teachers feel more compelled to do it
Teacher Consistency Important for Success	3 (17%)	<ul style="list-style-type: none"> • ... that is what I want, that the teachers push him, that they have to turn in their work ... he has to tell him to try harder
Focus on Behavioral Skills Appreciated (<i>n</i> = 4; 22%)		
Appreciated Focus on the Positive Skills (not Medicine)	3 (17%)	<ul style="list-style-type: none"> • We need to try to find strategies and techniques that will work ... without doing a quick fix like the medicine

Note. *N* = 18.

^aTranslated from Spanish.

provide support for the sustainability of CLS-S outcomes, as evidenced by substantial improvement in ADHD and ODD symptoms recognized by parents/caregivers into the next school year for treated families compared to families receiving school services as usual. Qualitative themes support CLS-S process and outcome results, with most parents/caregivers describing improvements following CLS-S, appreciation of the collaborative design, positive rapport with staff, and ease of CLS-S employment. Promising mixed-method findings from this first known effort to implement and evaluate a school-home program for Spanish-speaking families of youth with attention/behavior

concerns support translating evidence-based interventions guided by theoretical models balancing adaptation with fidelity.

Providers at least partially covered the majority of CLS-S group content with high levels of competence quality, suggesting that our effort within the CAP model INITIAL ADAPTATIONS stage addressing the EVM LANGUAGE domain was effective. These promising results may be due in part to the thorough translation process employed emphasizing decentering, or the maintenance of meaning over literal translations (van Widenfelt et al., 2005; Werner & Campbell, 1970). In addition, the *in vivo* supervision and weekly

Table 8. Emerging themes regarding CLS-S outcomes described in qualitative feedback.

Most Commonly Endorsed Codes	<i>n</i> (%)	Example Quote ^a
Home Impairment Improvement Identified (<i>n</i> = 17; 94%)		
Child Completes Home Routines/Tasks	7 (39%)	• Now he knows what he has to do, it helped him with his habits, to wake up in the morning, to do his things by himself. There were times when I did them, but he didn't pay attention to me, and now he is good, he does it on his own.
Parent Effectively Provides Rewards to Child	5 (28%)	• When he wants something, I ask him to do something in return. Like, "oh look, if you get good grades, or you change a behavior, you will get a prize, but not because you are behaving well I will reward you, because that is what you are supposed to do," that is how I praise him, like little rewards.
Academic Impairment Improvement Identified (<i>n</i> = 9; 50%)		
Responds to Daily Report Card Classroom Behavior System	6 (33%)	• It was good, because the child always brought the binder. I signed it when he got the points, and when he didn't get the points I asked him "Why?" and "because I was distracted." I told him "You know what, you need to win and get the points because if not, I won't give you a reward". And then he had more effort and he always took the binder in the backpack or hung it. And when he forgot it he needed to go back and get it, but the binder worked because it always was there.
Completes Homework	3 (16%)	• ... and he said, "no, no mom, I promise, pinky promise, I will do my homework in the [after school] program", and so, when I asked about the homework he did it. I came home at night and reviewed his backpack and saw the homework; he did the entire page. It was rare when I needed to help him.
Social/Emotional Impairment Improvement Identified (<i>n</i> = 8; 44%)		
Child Is Assertive	3 (17%)	• She showed him more tools to stand up and express himself, so I liked that.
Child Knows How to Deal with Teasing	3 (17%)	• ... and he learned how to deal with teasing.
Inattention Improvement Identified (<i>n</i> = 4; 22%)		
Doesn't Avoid/Dislike Tasks with Mental Effort	2 (11%)	• He is a little bit more motivated now and he's into the work more than he was in the 2nd grade.
Hyperactivity/Impulsivity Improvement Identified (<i>n</i> = 2; 11%)		
Less Hyperactive/Inquieto in General	2 (11%)	• Yes, at first she wanted to test out the teacher. But she realized that he was strict, and she calmed down. So now she is very easygoing.

Note. *N* = 18. CLS-S = Collaborative Life Skills program implemented in Spanish.

^aTranslated from Spanish.

consultation meetings included attention to language accuracy/relevancy and adjustments were made to phrasing or wording as needed. Thus, although the process of thorough translation and iterative language correction can be tedious and lengthy (Werner & Campbell, 1970), these steps likely contributed to the high-fidelity ratings demonstrated by CLS-S providers.

Despite potential barriers to the recruitment and retention of ethnic minority participants in clinical research (Brown, Marshall, Bower, Woodham, & Waheed, 2014; Lau, Chang, & Okazaki, 2010; Loue & Sajatovic, 2008; Waheed, Hughes-Morley, Woodham, Allen, & Bower, 2015), the current sample of Spanish-speaking Latinos demonstrated high levels of group attendance and strategy implementation comparable to those documented in the original CLS trial. Emerging themes from the qualitative feedback may help explain promising process results in the current study. Specifically, when asked about

appreciated aspects of CLS-S, almost all caregivers endorsed themes regarding the collaborative design and positive rapport with staff, supporting our focus on sharing experiences or *compartiendo vivencias* along the EVM PERSONS domain. These themes suggest several potential reinforcing factors to CLS-S participant attendance and engagement, including the support and shared experiences encouraged in the parent/caregiver groups, the family–teacher communication encouraged in the school consultation, and the friendly and respectful interaction encouraged between participants and the bilingual/bicultural staff. Reinforcing factors related to social support may be beneficial for any family participating in behavioral ADHD services, but seem particularly aligned with traditional Latino values, such as *personalismo* (Barker et al., 2010).

In addition, the emerging code regarding appreciation of examples used in the parent/caregiver group suggests that CLS-S may align with the EVM

domain of METAPHORS without modification. These results are interesting given that previous adaptations of behavioral interventions have reframed examples as traditional Latino proverbs or *dichos* (e.g., Parent-Child Interaction Therapy; Matos et al., 2006). It is possible that examples used in CLS-S focused on home impairment (e.g., difficulty controlling child behavior at a restaurant, non-compliance to parent/caregiver instructions) tap into common experiences for families of children with attention/behavior concerns across cultures and thus are relatable without alteration.

More than half of the parents/caregivers endorsed the theme regarding ease of CLS-S employment, with many describing feasibility of attending sessions at the school, addressing the EVM domains of METHODS and CONTEXT. Accessible school-based services in Spanish may be particularly beneficial for Latino families in the United States, who are disproportionately impoverished and often lack English proficiency (DeNavas-Walt, Proctor, & Smith, 2009; Derose & Baker, 2000). Thus, the CLS-S school-based delivery may combat barriers to care commonly experienced by vulnerable populations, such as lack of money, insurance coverage, transportation, and child-care needed to participate in traditional services (Eraldi et al., 2006; Paidipati et al., 2017). Notwithstanding the overwhelming sentiment regarding ease of CLS-S employment, the emerging codes regarding desire for booster sessions and importance of teacher consistency suggest that CLS-S METHODS and CONTEXT require attention to dependability and follow-through for optimal acceptability and effectiveness with Spanish-speaking Latino families. These codes are supported by follow-up fidelity and outcome results described next.

Perhaps most important, compared to children receiving school services as usual, children receiving CLS-S showed significant improvements in ADHD and ODD symptom severity when rated by both parents/caregivers and teachers. In addition, parents/caregivers of children receiving CLS-S reported improvements in social skills and teachers of children receiving CLS-S reported improvements in organization problems. These significant outcomes represented effects generally comparable to those reported in the original trial analysis, signifying that English-speaking Latino and non-Latino families and Spanish-speaking Latino families

appear to benefit similarly to the CLS intervention when it is delivered in their preferred language. Teacher-rated academic competence recovery did not reach statistical significance in the current sample; however, results trended toward significance. Thus, the small size of the current sample likely hindered our ability to demonstrate significant recovery in academic competence.

Furthermore, parents/caregivers of children receiving CLS-S reported improvements in ADHD and ODD symptom severity into the next school year. Measurement issues may explain the nonsignificant findings in teacher ratings between CLS-S and BAU at follow-up. Specifically, parents/caregivers were consistent raters across baseline, post, and follow-up; however, although one teacher rated students at baseline and post, often a new teacher rated students at follow-up. Further, given that follow-up ratings were collected in early fall of a new school year, the new teacher may not have been familiar with the student, and ratings collected later in the school year may be more sensitive to detecting follow-up treatment effects. Important to note, examination of within-group differences from post to follow-up suggest that children in CLS-S maintained gains in parent/caregiver and teacher-rated ADHD symptom severity, ODD symptom severity, organizational problems, social skills, and academic competency rather than deteriorating. However, several within-group analyses from post to follow-up are significant for students assigned to BAU, indicating improvement in many outcomes in the next school year for children assigned to school services as usual. Future research examining the impact of evidence-based services (such as CLS-S) versus school services as usual on student outcomes into subsequent school years may help explain this finding further.

Of interest, although significant ADHD symptom improvements emerged on behavior rating scales, a minority of the parents/caregivers spontaneously described symptom improvement in the interviews and focus groups. In contrast, almost every parent/caregiver described improvement in home, academic, and/or social functioning. These findings, along with the emerging theme regarding the appreciated focus on behavioral skills, suggest that CLS-S GOALS are in agreement with Latino caregivers' expectations and values. Results also

support previous research suggesting that difficulties related to ADHD impairment may be more relevant and meaningful to Latino families compared to ADHD symptoms (Arcia & Fernández, 2003; Haack & Gerdes, 2011; Schmitz & Velez, 2003) and may help explain why many Latino families prefer behavioral intervention to medication (Paidipati et al., 2017; Pham et al., 2009). Furthermore, the fact that improvement in home impairment was the most common outcome spontaneously endorsed appears to align with the traditional Latino value of *familismo* (Barker et al., 2010). In fact, one parent suggested that we could further highlight the alignment between CLS-S GOALS and Latino cultural values in the program name, with a title reflecting *familismo* or *strong families*. Taken together, findings support emphasis of functional impairment as well as symptoms in ADHD in assessment, treatment, and outreach services, especially when working with Spanish-speaking Latino families.

In addition to alignment with the EVM domains just described, it appears that CLS-S dimensions of CONTENT and CONCEPTS are in agreement with Latino parent/caregivers' expectations and values for child behavior and family functioning, as reflected in the themes regarding appreciation/satisfaction with the program and a perception that the program was helpful/beneficial. Thus, although previous adaptation efforts have explicitly reframed intervention CONTENT and CONCEPTS as cultural values (e.g., discipline strategies as *respeto* in the Parent Management Training Oregon Model; Domenech-Rodríguez et al., 2011), findings from the current study suggest that this may not be necessary for CLS-S. It is possible that the group format in which parents/caregiver collaboratively discuss strategies allowed for independent cultural framing of CLS-S CONTENT and CONCEPTS without explicit modification in the manual and materials.

Overall, mixed-method results suggest that CLS-S is well aligned with Spanish-speaking Latino family values, preferences, and expectations. Thus, in contrast to several existing adaptation efforts of behavioral interventions for Spanish-speaking families applying modifications along various EVM domains (e.g., Baumann et al., 2014; Domenech Rodríguez et al., 2011; Martinez & Eddy, 2005; Matos et al., 2009; McCabe et al., 2005), it appears that CLS

needed very minor modifications to produce acceptability and promising outcomes for Spanish-speaking Latino families. Findings support the application of CAP model stages in the adaptation of evidence-based services, allowing for initial adaptations with minor modifications, followed by iterative modification and continued implementation/evaluation efforts as indicated.

Limitations and future directions

There are several limitations to the current study that should be noted and could serve as a springboard for future research. To begin, the schedules of participating Spanish-speaking SMHPs prevented random assignment of CLS-S versus BAU control conditions. The lack of randomization prevents definitive conclusions regarding the efficacy of CLS-S; however, the emergence of outcomes controlling for baseline functioning and parent/caregiver education provides confidence that differences indeed are due to receipt of CLS-S and not confounding variables. In addition, one CLS-S school had implemented CLS in English the previous semester, such that the SMHP and two of the four teachers already were trained in and had implemented CLS in English; further, one of the BAU SMHPs had been trained in and implemented the CLS intervention in English at a different school. This SMHP was instructed to refrain from using the CLS intervention strategies at the BAU school, and she confirmed that she did. The lack of improvement for this BAU school offers further support for a lack of contagion of CLS strategies during the BAU waitlist period. However, future research investigating CLS-S should employ randomized controlled designs with schools, teachers, and SMHPs unique to the intervention to minimize any possible contagion. Second, it is unclear if promising findings in the current study would generalize to settings without a full-time Spanish-speaking SMHP and/or without the use of bilingual/bicultural clinical research team consultants.

In addition, the modest sample size of 24 Latino families prevented investigation of intragroup differences based on factors such as acculturation level or country of origin. Future research should seek to address the impact of differential school resource allocation, as well as within-group variability of participants, including exploration of how

individual, family, and school differences influence treatment process and outcomes. Furthermore, rater bias or expectancy effects may have influenced findings on parent/caregiver and teacher-rated outcomes. The use of objective measures and/or observations in future research is warranted to support promising findings from the current study.

As presented in the introduction, 56 of the 135 youth participating in the CLS intervention had at least one parent identifying as Latino. These Latino parents were proficient in English and thus received the intervention in English without modification. Of interest, results of post hoc analyses comparing RCT outcomes for Latino and non-Latino families in the original CLS intervention did not differ. Results for both groups also were similar to results presented in the current article for Latino families receiving CLS-S. Future comparative effectiveness studies of CLS versus CLS-S within the Latino population are needed to examine the adaptations most important for better personalizing treatments to meet family and child needs. Of interest, some adaptations made in CLS-S for Spanish-speaking families appeared relevant for all families. For example, Latino families in the original CLS intervention were presented the time-out strategy despite its limited use within the Latino community. Anecdotal observation of the original CLS intervention in English revealed that many families (some Latino and some non-Latino) did not choose to implement time-out and instead implemented other discipline strategies taught, such as response cost. On the other hand, some adaptations in CLS-S for Spanish-speaking families were not apparently needed. For example, although extended family members were invited to participate in CLS-S, only one secondary caregiver participated.

We experienced some challenges implementing CLS-S in a public school setting, which may reflect challenges that one would find implementing manualized interventions within public school settings nationwide. Scheduling meetings with participating teachers amidst their overwhelming preexisting workload, for example, proved troublesome at times. We attempted to address these challenges by compensating teachers for

completing measures, offering supplemental salary with school professional developmental funds when possible, and securing coverage for preexisting responsibilities (e.g., recess duty) when possible. This support was provided regardless of school assignment to CLS-S or BAU. We also created a video-recording of a teacher's testimonial about the benefits of the program, which we presented during recruitment and at the teacher orientation meeting. Future research could expand upon methods to enhance and reinforce teacher participation in settings with increasingly strained resources and high work expectations.

Finally, one could argue that the support provided by our team in the form of monetary compensation for SMHP training completed outside of the workday, as well as monetary compensation for participating parents/caregivers and teachers completing rating scales, limits the generalizability of our findings to low-income schools lacking the resources to provide such support or compensation. Future research examining predictors of evidence-based psychosocial treatment uptake by school communities is warranted to promote dissemination and implementation of these intervention in low-resource settings. For example, efforts to train SMHPs in evidence-based interventions (such as the CLS program) throughout their graduate training, as part of their school placement orientation, or during the salaried workday may increase uptake of evidence-based school service adoption. In addition, exploration of nonmonetary compensation for participating parents/caregivers and teachers may be beneficial to maximize treatment engagement and adherence. Of interest, previous research suggests that Latino families may be more motivated to participate in clinical research because of social benefits (e.g., efforts by the research staff to provide services to the community, endorsement of the research by trusted leaders and gatekeepers) compared to monetary reimbursement (Haack, Gerdes, & Lawton, 2014).

Conclusions and implications

Employing a bilingual/bicultural staff to adapt and oversee implementation/evaluation of translated interventions has the potential to combat persisting disparities in evidence-based service use for at-risk and underserved populations, such as Spanish-

speaking Latino families. Application of theoretical models balancing adaptation with fidelity can identify and prioritize which adaptations (if any) are indicated to produce acceptability, as well as meaningful and sustained outcomes. The current study provided a positive model of such a process, guided by the cultural adaptation process and ecological validity models, suggesting that behavioral school-based services for ADHD symptoms and impairments can be successfully implemented in Spanish with limited modifications from the original intervention. Promising mixed-method findings support continued implementation/evaluation of allocating existing school resources to application of empirically supported services (such as CLS-S) to serve our increasingly diverse communities.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This study was funded by a United States (U.S.) Department of Education Grant (R324A120358; PI: Pffiffer) and a Ruth L. Kirschstein National Research Service Award (NRSA) for Individual Postdoctoral Fellows (F32MH101971; PI: Haack). This manuscript was prepared during Dr. Haack's time on the National Institute of Health (NIH) Research Training Grant # R25 TW009343 funded by the Fogarty International Center and the National Institute of Mental Health, as well as the University of California Global Health Institute (UCGHI). The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or UCGHI.

Compliance with Ethical Standards

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

Informed consent

Informed consent was obtained from all individual participants included in the study.

References

- Abikoff, H., & Gallagher, R. (2009). *Children's organizational skills scale*. New York, NY: Multi-Health Systems.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Arcia, E., & Fernández, M. C. (2003). From awareness to acknowledgment: The development of concern among Latina mothers of children with disruptive behaviors. *Journal of Attention Disorders*, 6(4), 163–175. doi:10.1177/108705470300600403
- Barker, C. H., Cook, K. L., & Borrego, J., Jr. (2010). Addressing cultural variables in parent training programs with Latino families. *Cognitive and Behavioral Practice*, 17(2), 157–166. doi:10.1016/j.cbpra.2010.01.002
- Bauermeister, J. J., Matos, M., Reina, G., Salas, C. C., Martinez, J. V., Cumba, E., & Barkley, R. (2005). Comparison of the DSM-IV combined and inattentive types of ADHD in a school-based sample of Latino/Hispanic children. *Journal of Child Psychology and Psychiatry*, 46, 166–179. doi:10.1111/jcpp.2005.46.issue-2
- Baumann, A. A., Domenech Rodríguez, M. M., Amador, N. G., Forgatch, M. S., & Parra-Cardona, J. R. (2014). Parent Management Training-Oregon Model (PMTO™) in Mexico City: Integrating cultural adaptation activities in an implementation model. *Clinical Psychology: Science and Practice*, 21(1), 32–47. doi:10.1111/cpsp.12059
- Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: Issues for the cultural adaptation and development of psychosocial treatments with Hispanics. *Journal of Abnormal Child Psychology*, 23(1), 67–82. doi:10.1007/BF01447045
- Biederman, J., Petty, C. R., Woodworth, K. Y., Lomedico, A., Hyder, L. L., & Faraone, S. V. (2012). Adult outcome of attention-deficit/hyperactivity disorder: A controlled 16-Year follow-up study. *The Journal of Clinical Psychiatry*, 73(07), 941–950. doi:10.4088/JCP.11m07529
- Brown, G., Marshall, M., Bower, P., Woodham, A., & Waheed, W. (2014). Barriers to recruiting ethnic minorities to mental health research: A systematic review. *International Journal of Methods in Psychiatric Research*, 23(1), 36–48. doi:10.1002/mpr.1434
- Castro, F. G., Barrera, M., & Holleran Steiker, L. K. (2010). Issues and challenges in the design of culturally adapted evidence-based interventions. *Annual Review of Clinical*

- Psychology*, 6, 213–239. doi:10.1146/annurev-clinpsy-033109-132032
- Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA, US: Sage Publications, Inc. doi:10.1111/j.1753-6405.2007.00097.x/full
- DeNavas-Walt, C., Proctor, B. D., & Smith, J. C. (2009). Income, poverty, and health insurance coverage in the United States: 2009. *U.S. Census Bureau*. Retrieved from <http://www.census.gov/prod/2010pubs/p60-238.pdf>
- Derose, K. P., & Baker, D. W. (2000). Limited English proficiency and Latinos' use of physician services. *Medical Care Research and Review*, 57(1), 76–91. doi:10.1177/107755870005700105
- Domenech-Rodriguez, M., & Wieling, E. (2005). Developing culturally appropriate, evidence-based treatments for interventions with ethnic minority populations. In M. Rastogi & E. Wieling (Eds.), *Voices of Color: First Person Accounts of Ethnic Minority Therapists* (pp. 313–333). Thousand Oaks, CA, US: Sage Publications, Inc. <http://dx.doi.org/10.4135/9781452231662.n18>.
- Dumas, J. E., Arriaga, X., Begle, A. M., & Longoria, Z. (2010). "When will your program be available in Spanish?" Adapting an early parenting intervention for Latino families. *Cognitive and Behavioral Practice*, 17(2), 176–187. doi:10.1016/j.cbpra.2010.01.004
- DuPaul, G. J. (2007). School-based interventions for students with attention deficit hyperactivity disorder: Current status and future directions. *School Psychology Review*, 36(2), 183–194.
- Eraldi, R. B., Mazzuca, L. B., Clarke, A. T., & Power, T. J. (2006). Service utilization among ethnic minority children with ADHD: A model of help-seeking behavior. *Administration and Policy in Mental Health and Mental Health Services Research*, 33, 607–622. doi:10.1007/s10488-006-0063-1
- Evans, S. W., Owens, J. S., & Bunford, N. (2014). Evidence-based psychosocial treatments for children and adolescents with attention-deficit/hyperactivity disorder. *Journal of Clinical Child & Adolescent Psychology*, 43(4), 527–551. doi:10.1080/15374416.2013.850700
- Fabiano, G. A., Pelham, W. E., Jr., Waschbusch, D. A., Gnagy, E. M., Lahey, B. B., Chronis, A. M., ... Burrows-MacLean, L. (2006). A practical measure of impairment: Psychometric properties of the impairment rating scale in samples of children with attention deficit hyperactivity disorder and two school-based samples. *Journal of Clinical Child & Adolescent Psychology*, 35(3), 369–385. doi:10.1207/s15374424jccp3503_3
- Faraone, S. V., Asherson, P., Banaschewski, T., Biederman, J., Buitelaar, J. K., Ramos-Quiroga, J. A., ... Franke, B. (2015). Attention-deficit/hyperactivity disorder. *Nature Reviews Disease Primers*, 15020. doi:10.1038/nrdp.2015.20
- Faraone, S. V., Sergeant, J., Gillberg, C., & Biederman, J. (2003). The worldwide prevalence of ADHD: Is it an American condition? *World Psychiatry*, 2(2), 104–113.
- Ferrer-Wreder, L., Sundell, K., & Mansoor, S. (2012). Tinkering with perfection: Theory development in the intervention cultural adaptation field. In Ferrer-Wreder, L., Sundell, K. & Mansoor, S. (Eds.) *Child & youth care forum* (Vol. 41, pp. 149–171). Springer. doi:10.1007/s10566-011-9162-6
- Flores, G., Fuentes-Afflick, E., Barbot, O., Carter-Pokras, O., Claudio, L., Lara, M., ... Gomez, F. J. R. (2002). The health of Latino children: Urgent priorities, unanswered questions, and a research agenda. *JAMA: the Journal of the American Medical Association*, 288(1), 82–90. doi:10.1001/jama.288.1.82
- Flory, K., Molina, B. S. G., Pelham, W. E., Gnagy, E., & Smith, B. (2006). Childhood ADHD predicts risky sexual behavior in young adulthood. *Journal of Clinical Child and Adolescent Psychology: the Official Journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53*, 35(4), 571–577. doi:10.1207/s15374424jccp3504_8
- Forehand, R., & Kotchick, B. A. (1996). Cultural diversity: A wake-up call for parent training. *Behavior Therapy*, 27(2), 187–206. doi:10.1016/S0005-7894(96)80014-1
- Gadow, K. D., & Sprafkin, J. (1994). *Child symptom inventory*. Stony Brook, NY: Checkmate Plus.
- Gadow, K. D., & Sprafkin, J. (1997). *ADHD symptom checklist-4 manual*. Stony Brook, NY: Checkmate Plus.
- Gonzales, N. A., Lau, A. S., Murry, V. M., Pina, A. A., & Barrera, M. (2016). Culturally adapted preventive interventions for children and adolescents. *Developmental Psychopathology*. doi:10.1002/9781119125556.devpsy417/full
- Gradow, K. D., & Sprafkin, J. (2002). *Childhood Symptom Inventory-4 screening and norms manual*. Stony Brook, NY: Checkmate Plus.
- Gresham, F. M., & Elliot, S. N. (2008). *Social Skills Improvement System (SSIS) rating scales manual*. Minneapolis, MN: NCS Pearson, Inc.
- Haack, L. M., & Gerdes, A. C. (2011). Functional impairment in Latino children with ADHD: Implications for culturally-appropriate conceptualization and measurement. *Clinical Child and Family Psychology Review*, 14(3), 318–328. doi:10.1007/s10567-011-0098-z
- Haack, L. M., & Gerdes, A. C. (2014). Culturally appropriate assessment of functional impairment in diverse children validation of the ADHD-FX scale with an at-risk community sample. *Journal of Attention Disorders*, 1087054714553021. doi:10.1177/1087054714553021
- Haack, L. M., Gerdes, A. C., & Lawton, K. E. (2014). Conducting research with Latino families: Examination of strategies to improve recruitment, retention, and satisfaction with an at-risk and underserved population. *Journal of Child and Family Studies*, 23(2), 410–421. doi:10.1007/s10826-012-9689-7
- Hinshaw, S. P., Owens, E. B., Zalecki, C., Huggins, S. P., Montenegro-Nevado, A. J., Schrodek, E., & Swanson, E. N. (2012). Prospective follow-up of girls with attention-deficit/hyperactivity disorder into early adulthood: Continuing impairment includes elevated risk for suicide attempts and self-injury. *Journal of Consulting and Clinical Psychology*, 80(6), 1041.
- Hoza, B. (2007). Peer functioning in children with ADHD. *Ambulatory Pediatrics*, 7(1), 101–106. doi:10.1016/j.ambp.2006.04.011

- Hoza, B. (2007). Peer functioning in children with adhd. *ambulatorypediatrics*, 7(1), 101–106. doi:10.1016/j.ambp.2006.04.011
- Huey, S. J., & Polo, A. J. (2008). Evidence-based psychosocial treatments for ethnic minority youth. *Journal of Clinical Child and Adolescent Psychology : the Official Journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53*, 37(1), 262–301. doi:10.1080/15374410701820174
- IBM, SPSS (2015). SPSS for Mac, Release 23.0. Chicago: SPSS Inc. <http://www.spss.com>
- Johnston, C., & Mash, E. (2001). Families of children with attention-deficit/hyperactivity disorder: Review and recommendations for future research. *Clinical Child and Family Psychology Review*, 4(3), 183–207. doi:10.1023/A:1017592030434
- Kumpfer, K. L., Alvarado, R., Smith, P., & Bellamy, N. (2002). Cultural sensitivity and adaptation in family-based prevention interventions. *Prevention Science*, 3(3), 241–246. doi:10.1023/A:1019902902119
- Lau, A. S., Chang, D. F., & Okazaki, S. (2010). Methodological challenges in treatment outcome research with ethnic minorities. *Cultural Diversity and Ethnic Minority Psychology*, 16(4), 573–580. doi:10.1037/a0021371
- Loue, S., & Sajatovic, M. (2008). Research with severely mentally ill Latinas: Successful recruitment and retention strategies. *Journal of Immigrant and Minority Health/Center for Minority Public Health*, 10(2), 145–153. doi:10.1007/s10903-007-9063-9
- Martinez, C. R., Jr., & Eddy, J. M. (2005). Effects of culturally adapted parent management training on Latino youth behavioral health outcomes. *Journal of Consulting and Clinical Psychology*, 73(5), 841. doi:10.1037/0022-006X.73.5.841
- Matos, M., Bauermeister, J. J., & Bernal, G. (2009). Parent-child interaction therapy for puerto rican preschool children with ADHD and behavior problems: A pilot efficacy study. *Family Process*, 48(2), 232–252. doi:10.1111/j.1545-5300.2009.01279.x
- Matos, M., Torres, R., Santiago, R., Jurado, M., & Rodríguez, I. X. A. (2006). Adaptation of parent-Child interaction therapy for Puerto Rican families: A preliminary study. *Family Process*, 45(2), 205–222. doi:10.1111/j.1545-5300.2006.00091.x
- McCabe, K. M., Yeh, M., Garland, A. F., Lau, A. S., & Chavez, G. (2005). The GANA program: A tailoring approach to adapting parent child interaction therapy for Mexican Americans. *Education and Treatment of Children*, 28(2), 111–129.
- Ortiz, C., & Del Vecchio, T. (2013). Cultural diversity: Do we need a new wake-up call for parent training? *Behavior Therapy*, 44(3), 443–458. doi:10.1016/j.beth.2013.03.009
- Paidipati, C. P., Brawner, B., Eiraldi, R., & Deatrick, J. A. (2017). Parent and family processes related to ADHD management in ethnically diverse youth. *Journal of the American Psychiatric Nurses Association*, 1078390316687023. doi:10.1177/1078390316687023
- Parra-Cardona, J. R., Bybee, D., Sullivan, C. M., Rodríguez, M. M. D., Dates, B., Tams, L., & Bernal, G. (2017). Examining the impact of differential cultural adaptation with Latina/o immigrants exposed to adapted parent training interventions. *Journal of Consulting and Clinical Psychology*, 85(1), 58–71. doi:10.1037/ccp0000160
- Pelham, W. E., Jr., & Hoza, B. (1996). Intensive treatment: A summer treatment program for children with ADHD. In A. Summer, D. E. D. Hibbs, & P. S. Jensen (Eds.), *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 311–340). Washington, DC, US: American Psychological Association.
- Pfiffner, L. J., & Haack, L. M. (2015). Nonpharmacological treatments for childhood ADHD and their combination with medication. In P. E. Nathan and J. M. Gordon (Eds.), *A guide to treatments that work*, 4th Edition (pp. 55–84). NY: Oxford University Press. doi:10.1093/med:psych/9780199342211.003.0003
- Pfiffner, L. J., Hinshaw, S. P., Owens, E., Zalecki, C., Kaiser, N. M., Villodas, M., & McBurnett, K. (2014). A two-site randomized clinical trial of integrated psychosocial treatment for adhd-inattentive type. *Journal Of Consulting and Clinical Psychology*, 82(6), 1115–1127. doi:10.1037/a0036887
- Pfiffner, L. J., Kaiser, N. M., Burner, C., Zalecki, C., Rooney, M., Setty, P., & McBurnett, K. (2011). From clinic to school: translating a collaborative school-home behavioral intervention for adhd. *School Mental Health: a Multidisciplinary Research and Practice Journal*, 3(3), 127–142. doi:http://dx.doi.org/10.1007/s12310-011-9059-4
- Pfiffner, L. J., Rooney, M., Haack, L., Villodas, M., Delucchi, K., & McBurnett, K. (2016). A randomized controlled trial of a school-implemented school-home intervention for attention-deficit/hyperactivity disorder symptoms and impairment. *Journal Of The American Academy Of Child & Adolescent Psychiatry*, 55(9), 762–770. <http://dx.doi.org/10.1016/j.jaac.2016.05.023>
- Pfiffner, L. J., Rooney, M. E., Jiang, Y., Haack, L. M., Beaulieu, A., & McBurnett, K. (2018). Sustained effects of collaborative school-home intervention for attention-deficit/hyperactivity disorder symptoms and impairment. *Journal Of The American Academy Of Child & Adolescent Psychiatry*, 57(4), 245–251. doi:10.1016/j.jaac.2018.01.016
- Pham, A. V., Carlson, J. S., & Kosciulek, J. F. (2009). Ethnic differences in parental beliefs of attention-deficit/hyperactivity disorder and treatment. *Journal of Attention Disorders*. Retrieved from <http://jad.sagepub.com/content/early/2009/05/04/1087054709332391.abstract>
- Power, T., Mautone, J., & Soffer, S. (2012). A family-School intervention for children with ADHD: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 80(4), 611–623. doi:10.1037/a0028188
- Reardon, T., Harvey, K., Baranowska, M., O'Brien, D., Smith, L., & Creswell, C. (2017). What do parents perceive are the barriers and facilitators to accessing psychological treatment for mental health problems in children and adolescents? A systematic review of qualitative and quantitative studies. *European Child & Adolescent Psychiatry*, 1–25. doi:10.1007/s00787-016-0930-6

- Rodríguez, M. M. D., Baumann, A. A., & Schwartz, A. L. (2011). Cultural adaptation of an evidence based intervention: From theory to practice in a Latino/a community context. *American Journal of Community Psychology*, 47(1–2), 170–186. doi:10.1007/s10464-010-9371-4
- Schmitz, M. F., & Velez, M. (2003). Latino cultural differences in maternal assessments of attention deficit/hyperactivity symptoms in children. *Hispanic Journal of Behavioral Sciences*, 25(1), 110–122. doi:10.1177/0739986303251700
- van Widenfelt, B. M., Treffers, P. D. A., de Beurs, E., Siebelink, B. M., & Koudijs, E. (2005). Translation and cross-cultural adaptation of assessment instruments used in psychological research with children and families. *Clinical Child and Family Psychology Review*, 8(2), 135–147. doi:10.1007/s10567-005-4752-1
- Waheed, W., Hughes-Morley, A., Woodham, A., Allen, G., & Bower, P. (2015). Overcoming barriers to recruiting ethnic minorities to mental health research: A typology of recruitment strategies. *BMC Psychiatry*, 15, 101. doi:10.1186/s12888-015-0484-z
- Webster-Stratton, C., Reid, M., & Beauchaine, T. (2011). Combining parent and child training for young children with ADHD. *Journal of Clinical Child & Adolescent Psychology*, 40, 191–203. doi:10.1080/15374416.2011.546044
- Wechsler, D. (2011). *Wechsler abbreviated scale of intelligence* (2nd ed.). San Antonio, TX: The Psychological Corporation.
- Werner, O., & Campbell, D. T. (1970). Translating, working through interpreters, and the problem of decentering. In R. Naroll & R. Cohen (Eds.), *A handbook of cultural anthropology* (pp. 398–419). New York, NY: American Museum of Natural History.
- Willcutt, E. G. (2012). The prevalence of DSM-IV attention-deficit/hyperactivity disorder: A meta-analytic review. *Neurotherapeutics*, 9, 490–499.
- Woods, D., & Fassnacht, C. (2017). Transana v3.2. <https://www.transana.com>. Madison, WI: Spurgeon Woods LLC.