

**Development and Pilot Testing of an Internet-based Parenting  
Education Program for Teens and Pre-Teens:  
Parenting Wisely**

Edward G. Feil<sup>1</sup>, Donald Gordon<sup>2</sup>,  
Holly Waldron<sup>1</sup>, Laura Backen Jones<sup>1</sup>, and Chris Widdop<sup>1</sup>

<sup>1</sup>Oregon Research Institute and <sup>2</sup>Family Works

Running Head: Parenting Wisely

*The Family Psychologist*, 2011, 27 (22), 22-26

Author correspondence and reprint requests to: Edward Feil, Ph.D.  
Oregon Research Institute  
1715 Franklin Blvd.  
Eugene, OR 97403-1983]  
Ph: 541/484-2123;  
Fax: 541/484-1108  
E-mail: edf@ori.org

**Development and Pilot Testing of an Internet-based Version of Parenting Wisely**

The delivery of behavioral parent training (BPT) for disruptive behavior disorders (i.e., Oppositional

Defiant, Conduct Disorder, Drug Abuse) (Kazdin, 1995; Taylor & Biglan, 1998) is often hampered by lack of access to validated programs, the high cost of professional facilitators, and time and travel by parents to attend meetings (Spoth & Redmond, 2000). Such obstacles are compounded in ethnic minority populations, who are especially disadvantaged with respect to risk for child behavioral problems, barriers to participation, and especially access to culturally sensitive interventions (Amaro, Arévalo, Gonzalez, Szapocznik, & Iguchi, 2006; Carroll et al., 2007; Copeland, 2005; Shillington & Clapp, 2003; Smedley, Stith, & Nelson, 2003; Sue, Fujino, Hu, Takeuchi, & Zane, 1991). Moreover, research has found a link between having culturally similar video examples and the likelihood for change (Orleans et al., 1989). Hence, the inclusion of a culturally diverse group of parents may be critical to strengthening the adoption of the program and effecting behavior change in ethnic minority families.

With the aim of addressing the issues of access for ethnic minority families, our research group capitalized on the meteoric rise in the use of the internet (Madden, 2006) to offer one BPT program, Parenting Wisely (PW; Gordon, 2000) to Hispanic, African-American & non-Hispanic White parents with children ages 10 through 17 exhibiting disruptive behavior problems. PW was originally delivered on CD-ROM and has been translated to an Internet-based delivery system and has been shown to effectively reduce child problem behaviors and improve parenting skills (e.g., Cefai, Smith, & Pushak, 2010; O'Neill & Woodward, 2002; Segal, Chen, Gordon, Kacir, & Gylys, 2003). PW is video-based, showing vignettes of positive and negative parent-child interactions to teach critical parenting skills. For this project, our research group teamed with a group of three ethnically diverse experts (Latino, nonHispanic White, and African American) at research institutions in the field of conduct disorder, to revise and update the program for ethnic minority families. Updates included the following: (1). Revision of issues targeted to be more contemporary; (2). Several new skills (e.g., self talk, prompting, planned ignoring), and (3). new concepts and related practices (e.g., mindfulness to improve the quality of the parent-teen relationship & neuroscience to explain and remedy the conflict

between parents and teens (e.g., Duncan, Coatsworth, & Greenburg, 2009; Seigel, 2007; Siegel & Hartzell, 2003). The revised PW version was piloted with a culturally diverse sample of parents to assess increases in parent-reported child behavior.

Families of youth with a score in the clinical range (over 15) on the Eyberg Child Behavior Inventory were recruited from family service agencies, middle schools and online announcements. All contact with participants was either via phone or computer via the Internet. Of the 111 people who called, 91 (82%) were eligible and 65 of these completed the pre-assessment (71%) and 53 (58%) completed both the pre- and post-assessment. Participating families' annual income was fairly well distributed (with 26% < \$30,000, 43% \$30,000 to \$60,000, and 31% > \$60,000). The majority (47%) of the sample reported having some college (, 37% had a college degree; 13% high school or equivalency ; 3% less than a high school). Most participants (61%) were married or living with a significant other (30% divorced or separated ; 9% single). Parent reported race was as follows: 27% Hispanic or Latino; 35% African-American; 32% White; 2% Asian; 1% American Indian; 1% Native Hawaiian; 4% other; 25% not reported. Most (77%) participants were mothers (or step mothers) and 23% were fathers (or step father) with one foster parent. Parents' average age was 41.23 (SD=8.35). Most parents accessed the program at home (95%) with work, library and community resource agency providing access for 5%. Children were 60% male and 40% female with an average age of 13.92 (SD=3.93). Children's mean problem behavior rating on Eyberg was 24.64 (SD=5.19).

Examining gains from baseline to post assessment, all measures of child behavior reported by the parent improved. On the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), parents reported a highly significant reduction in problem behavior ( $t=3.91$ ,  $p<.001$ ) from 19.80 (SD=6.64) to 16.58 (7.00) resulting in a medium effect size of .46. On the Parenting Scale (PS; Arnold, O'Leary, Wolff, & Acker, 1993), Lax subscale, we found a reduction ( $t=1.28$ ,  $p=.20$ ) from 29.90 (SD=12.12) to 28.29 (SD=10.24) with a small effect size of .13. On the PS Overreactive subscale, we found a significant reduction ( $t=2.28$ ,  $p<.05$ ) from 30.32 (SD=10.08) to 27.89 (SD=8.92) resulting in a

small/medium effect size of .24. Parent report on the Parenting Sense of Competence Scale (PSOC; Gibaud-Wallston & Wandersman, 1978; Johnston & Mash, 1989). Satisfaction subscales increased significantly ( $t=-3.01$ ,  $p<.01$ ) from 35.17 (SD=8.78) to 37.67 (SD=8.72) with a small/medium effect size of .28. The Efficacy PSOC subscale also increased significantly ( $t=2.28$ ,  $p<.05$ ) from 33.56 (SD=7.46) to 35.60 (SD=6.92) with a small/medium effect size of .27. The effects are all in the expected direction showing significant improvements in parent reported child behavior and parenting.]

Overall satisfaction with the program was high (Range 0-6; mean=1.37, SD=.56) and parents found the program easy to understand (mean=1.38, SD=.59) and easy to use (mean=1.50, SD=.71). Parents found the PW program materials engaging (mean=1.44, SD=.65), provided new ideas about how to work with their children effectively (mean=1.32, SD=.60) and increased their motivation to improve their relationship with their child (mean=1.40, SD=.65). Parents reported that they were likely to use the strategies in the PW program (mean=1.40, SD=.563). Parents wrote many positive statements, such as “I am a little surprised that I found it helpful, we have been to therapists, counselors, etc., and didn’t expect to hear anything I haven’t already heard.”

The results of this pilot study of the revised Parenting Wisely (PW) program were very encouraging. All measures of parent reported (a) child behavior and (b) parenting showed good prosocial gains after receiving the revised PW program. The high level of satisfaction and usability supports the likelihood that parents like to use PW online and will be motivated to use it. The diverse sample of parents provided a very good test of the revised program in real-world conditions. Moreover, the appeal of the program across parents from various ethnic cultural groups is consistent with our goal of making the video more culturally salient to a wider group of parents and may result in better program adoption and improvements in parenting and child behaviors. Although this was not a randomized control trial, prior controlled research with PW (e.g., Cefai et al., 2010; Kacir & Gordon, 1999; Lagges & Gordon, 1999) showing similar strong effects increases our confidence that PW caused the improvements and our primary interest in the current trial was demonstrating feasibility and

satisfaction.. We are currently preparing for a RCT with a usual-care comparison group in order to determine the efficacy of PW.

As practitioners are keenly aware, there are major obstacles to delivering parent training, including the lack of medical coverage, absence of public or reliable transportation, lack of child care, and difficulty leaving work (e.g., DeLeon, Wakefield, & Hagglund, 2003; Nordal, Copans, & Stamm, 2003; Stamm et al., 2003), scheduling conflicts and missed appointments, and the ever increasing cost of travel. Getting parents to attend parenting groups is difficult (Ouellette & Wilkerson, 2008) and the drop-out rate for parenting classes frequently reach 50% or more (Heinrichs, 2005). In addition, the lack of professionals is especially problematic in rural areas (Roberts, Battaglia, & Epstein, 1999). Delivery of the parenting program via Internet increases accessibility by overcoming obstacles to parent participation and decreasing the costs of intervention. The revised PW program and delivery system have the potential of being highly disseminable and cost-effective when traditional in-vivo treatment is not feasible.

### References

- Amaro, H., Arévalo, S., Gonzalez, G., Szapocznik, J., & Iguchi, M. Y. (2006). Needs and scientific opportunities for research on substance abuse treatment among Hispanic adults. *Drug and Alcohol Dependence*, 84(Supplement 1), S64-S75.
- Arnold, D. S., O'Leary, S. G., Wolff, L. S., & Acker, M. M. (1993). The parenting scale: A measure of dysfunctional parenting in discipline situations. *Psychological Assessment*, 5(2), 137-144.
- Bosco, J. (1986). An analysis of evaluations of interactive video. *Educational Technology*, 26, 7-17.
- Carroll, K. M., Rosa, C., Brown Jr., L. S., Daw, R., Magruder, K. M., & Beatty, L. (2007). Addressing ethnic disparities in drug abuse treatment in the clinical trials network. *Drug and Alcohol Dependence*, 90, 101-106.
- Cefai, J., Smith, D., & Pushak, R. E. (2010) The Parenting Wisely parent training program: An evaluation with an Australian sample. *Child and Family Behavior Therapy*, 32, 17-33.
- Connell, S., Sanders, M. R., & Markie-Dadds, C. (1997). Self-directed behavioral family intervention for parents of oppositional children in rural and remote areas. *Behavior Modification*, 21, 379-408.

- Copeland, V. C. (2005). African Americans: Disparities in Health Care Access and Utilization. *Health & Social Work, 30*(3), 265-270.
- Davidson, R. J., Abercrombie, H., Nitschke, J. B., & Putnam, K. (1999). Regional brain function, emotion and disorders of emotion. *Current Opinion in Neurobiology, 9*(2), 228-234.
- DeLeon, P. H., Wakefield, M., & Hagglund, K. J. (2003). The behavioral health care needs of rural communities in the 21<sup>st</sup> century. In, H. B. Stamm (Ed.), *Rural behavioral health care: An interdisciplinary guide* (pp. 23-32). Washington DC: American Psychological Association.
- Duncan, L., Coatsworth, J., & Greenberg, M. (2009). A Model of Mindful Parenting: Implications for Parent–Child Relationships and Prevention Research. *Clinical Child and Family Psychology Review, 12*(3), 255-270.
- Eyberg, S. M. & Ross, A. W. (1978). Assessment of child behavior problems: The validation of a new inventory. *Journal of Clinical Child Psychology, 7*(2), 113-116.
- Fletcher, J. D. (1990). Effectiveness and cost of an interactive videodisc instruction in Defense training and education (Report No. P-2372). Institute for Defense Analysis.
- Gibaud-Wallston, J., & Wandersman, L. P. (1978). Development and utility of the Parenting Sense of Competence Scale. Paper presented at the meeting of the American Psychological Association, Toronto.
- Giedd, J. N., Blumenthal, J., Jeffries, N. O., Castellanos, F. X., Liu, H., Zijdenbos, A., . . . Rapoport, J. L. (1999). Brain development during childhood and adolescence: a longitudinal MRI study. *Nature Neuroscience, 2*(10), 861-863.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry, 38*, 581-586.
- Goodman, R. & Scott, S. (1999). Comparing the Strengths and Difficulties Questionnaire and the Child Behavior Checklist: Is small beautiful? *Journal of Abnormal Child Psychology, 27*, 17-24.
- Gordon, D. A. (2000). Parent training via CD-ROM: Using technology to disseminate effective prevention practices. *The Journal of Primary Prevention, 21*(2), 227-251.
- Heinrichs, D. W. (2005). Chaos and clinical theory. *Philosophy, Psychiatry, & Psychology, 12*(3), 243-246.
- Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology, 18*, 167-175.
- Kacir, C. D., & Gordon, D. A. (1999). Parenting Adolescents Wisely: The effectiveness of an interactive videodisk parent training program in Appalachia. *Child & Family Behavior Therapy, 21*(4), 1-22.
- Kazdin, A. E. (1995). *Conduct disorders in childhood and adolescence* (2nd). Thousand Oaks, CA: Sage Pub.
- Lagges, A. M., & Gordon, D. A. (1999). Use of an interactive laserdisc parent training program with

teenage parents. *Child & Family Behavior Therapy*, 21(1), 19-37.

- Madden, M. (2006). *Internet Penetration and Impact*. Retrieved from Pew Internet & American Life Project website: [http://www.pewinternet.org/pdfs/PIP\\_Internet\\_Impact.pdf](http://www.pewinternet.org/pdfs/PIP_Internet_Impact.pdf)
- McNeil, B. J., & Nelson, K. R. (1991). Meta-analysis of interactive video instruction: A 10 year review of achievement effects. *Journal of Computer-Based Instruction*, 18(1), 1-6.
- McMahon, R. J., & Estes, A. M. (1997). Conduct problems. In E. J. Mash and L. G. Terdal (Eds.), *Assessment of Childhood Disorders* (3<sup>rd</sup> ed, pp. 130-193). New York: Guilford Press.
- Niemic, R., & Walberg, H. (1987). Comparative effects of computer assisted instruction: A synthesis of reviews. *Journal of Educational Computer Research*, 3, 19-37.
- Nordal, K. C., Copans, S. A., & Stamm, H. B. (2003). Children and adolescents in rural and frontier areas. In, H. B. Stamm (Ed.), *Rural behavioral health care: An interdisciplinary guide* (pp. 159-170). Washington, DC: American Psychological Association.
- O'Neill, H., & Woodward, R. (2002). Evaluation of the Parenting Wisely CD-ROM parenting training programme: An Irish replication. *Irish Journal of Psychology*, 1-2, 62-72.
- Organista, K. C., Muñoz, R. F., & Gonzalez, G. (1994). Cognitive-behavioral therapy for depression in low-income and minority medical outpatients: Description of a program and exploratory analyses. *Cognitive Therapy and Research*, 18(3), 241-259.
- Orleans, C. T., Strecher, V. J., Schoenbach, V. J., Salmon, M. A., & Blackmon, C. (1989). Smoking cessation initiatives for Black Americans: recommendations for research and intervention. *Health Education Research*, 4(1), 13-25.
- Ouellette, P. M., & Wilkerson, D. (2008). 'They won't come': Increasing parent involvement in parent management training programs for at-risk youths in schools. *School Social Work Journal*, 32(2), 39-53.
- Roberts, L., Battaglia, J., & Epstein, R. S. (1999). Frontier ethics: Mental health care needs and ethical dilemmas in rural communities. *Psychiatric Services*, 50(4), 497-503.
- Segal, D., Chen, P. Y., Gordon, D. A., Kacir, C. D., & Gylys, J. (2003). Development and evaluation of a parenting intervention program: Integration of scientific and practical approaches. *International Journal of Human-Computer Interaction*, 15(3), 453-467.
- Siegel, D. J. (2007). *The mindful brain*. New York: W. W. Norton.
- Siegel, D. J. & Hartzel, M. (2003). *Parenting from the inside out*. New York: Penguin.
- Shillington, A. M., & Clapp, J. D. (2003). Adolescents in public substance abuse treatment programs: The impacts of sex and race on referrals and outcomes. *Journal of Child and Adolescent Substance Abuse*, 12, 69-91.
- Smedley, B. D., Stith, Y., & Nelson, A. R. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington DC: National Academies Press.

- Spoth, R., & Redmond, C. (2000). Research on family engagement in preventive interventions: Toward improved use of scientific findings in primary prevention practice. *Journal of Primary Prevention, 21*(2), 267-284.
- Stamm, H. B., Piland, N. F., Crouse, B., Boulger, J., Davis, G., Ide, B. A., . . . Tidwell, K.(2003). Essays from the field. In, H. B. Stamm (Ed.), *Rural behavioral health care: An interdisciplinary guide* (pp. 11-20.) Washington DC: American Psychological Association.
- Sue, S., Fujino, D. C., Hu, L., Takeuchi, D. T., & Zane, N. W. S. (1991). Community mental health services for ethnic minority groups: A test of the cultural responsiveness hypothesis. *Journal of Consulting and Clinical Psychology, 59*, 533–540.
- Taylor, T., & Biglan, A. (1998). Behavioral family interventions for improving childrearing: A review of literature for clinicians and policy makers. *Clinical Child and Family Psychology Review, 1*(1), 41-60.
- Webster-Stratton, C., Kolpacoff, M., & Hollinsworth, T. (1988). Self-administered videotape therapy for families with conduct-problem children: Comparison with two cost-effective treatments and a control group. *Journal of Consulting and Clinical Psychology, 56*(4), 558-566.