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What is This?
Cultural Adaptation Process for International Dissemination of the Strengthening Families Program

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The Strengthening Families Program (SFP) is an evidence-based family skills training intervention developed and found efficacious for substance abuse prevention by U.S researchers in the 1980s. In the 1990s, a cultural adaptation process was developed to transport SFP for effectiveness trials with diverse populations (African, Hispanic, Asian, Pacific Islander, and Native American). Since 2003, SFP has been culturally adapted for use in 17 countries. This article reviews the SFP theory and research and a recommended cultural adaptation process. Challenges in international dissemination of evidence-based programs (EBPs) are discussed based on the results of U.N. and U.S. governmental initiatives to transport EBP family interventions to developing countries. The technology transfer and quality assurance system are described, including the language translation and cultural adaptation process for materials development, staff training, and on-site and online Web-based supervision and technical assistance and evaluation services to assure quality implementation and process evaluation feedback for improvements.

Keywords: international; adaptation; Strengthening Families Program

Prevention of health and mental health problems in children and adolescents is of great international concern. Family strengthening interventions have shown considerable promise for the prevention of clinical psychological issues and enhancing resilience (Weissberg, Kumpfer, &
Seligman, 2003). Comprehensive literature reviews of effective family-based prevention programs have identified specific family programs with evidence of effectiveness in improving outcomes for children and adolescents (Biglan & Taylor, 2000; Bunting, 2004; Kumpfer, 2000; Kumpfer & Alder, 2002; Liddle, Santisteban, Levant, & Bray, 2002; Lochman, 2000; Taylor & Biglan, 1998). In some areas of health, such as substance abuse prevention, family interventions have been found to be the most effective approaches for long-term improvements (Kumpfer & Alvarado, 2003). The Strengthening Families Program (SFP) is one of the family interventions supported by multiple research studies with diverse cultural populations in many countries. SFP is an evidence-based (EB) family skills training approach developed in the United States. Cultural adaptations were made during the 1990s and tested in the United States among five ethnic populations (African, Hispanic, Asian, Pacific Islander, and Native American). International adaptation and dissemination accelerated in 2003 to more than 17 countries after a meta-analysis by the Cochrane Collaboration Reviews in Medicine and Public Health at Oxford University (Foxcroft, Ireland, Lister-Sharp, Lowe, & Breen, 2003) concluded SFP was twice as effective as other school-based alcohol prevention programs.

This article reviews the theory and research on the recommended cultural adaptation and technology transfer process used for the national and international transport of SFP. Additionally, potential challenges that can be incurred in the international dissemination of EB programs (EBPs) will be discussed based on the results of U.N. and U.S. governmental initiatives to transport family interventions to economically stressed developing countries. The technology transfer and quality assurance system will be described, including language translation and cultural adaptation process for materials development, staff training, onsite and online Web-based supervision, technical assistance and evaluation services to assure quality implementation, and process evaluation feedback for improvements.

Program Description

The SFP is a 14-session family skills training program designed to prevent drug use and misuse. SFP has been repeatedly evaluated for the past 20 years, including independent evaluations, showing improvements in parental and family functioning with positive impact on children’s behaviors and mental health. Because improvements in the family environment and interaction patterns can prevent many different health and psychological problems in youth, local agencies are implementing and adapting SFP for
the prevention of not just substance abuse but also delinquency, HIV, obesity, diabetes, child maltreatment, and children’s depression and other mental health disorders, with diverse populations (e.g., Brody et al., 2004).

SFP involves the whole family in a multicomponent, dynamic, and interactive behavior change intervention. Sessions generally are 2 hours long. Parent Skills Training involves groups of about 4 to 12 parents in the first hour while their children attend a separate Children’s Skills Training group. In the second hour, the families are split into two multifamily Family Skills Training groups, each run by two culturally matched co-leaders, preferably a man and a woman. Parents and their children practice strengthening their family relations through exercises designed to improve their observation, monitoring, play, communication, and discipline skills. Booster sessions or family reunions are recommended at 6 and 12 months to maintain intervention gains.

**Cultural Adaptations and Replication Research**

SFP was originally designed in 1982 for high-risk children (6 to 12 years) of drug-abusing parents in treatment. The results of this National Institute on Drug Abuse–funded research involving a four-group, randomized control dismantling design found that the three SFP components have a differential impact on predictor variables for drug use, namely by improving parenting skills, children’s social skills and adjustment, and family relational skills. During the past 20 years, SFP has been culturally adapted by independent and semi-independent investigators collaborating with the program developer, Dr. Karol Kumpfer. Replications of program effects have been demonstrated with universal, selective, and indicated populations of families, and culturally adapted versions have shown positive effects in the United States for African American, multicultural, Asian and Pacific Islander, Hispanic, and American Indian families. In one study, the positive results were weakened when SFP was shortened from 14 sessions to 10 sessions to allow for 10 extra sessions on Hawaiian cultural values (Kameoka, 1996).

A seven-session SFP version for universal families of junior high school students has been developed and implemented in rural Iowa (Kumpfer, Molgaard, & Spoth, 1996). Results of a randomized control trial with 5 years of follow-up found this SFP for 10- to 14-year-olds effective in significantly reducing alcohol and drug abuse with a $9.60 to $1 cost benefit ratio (Spoth, Guyll, & Day, 2002). Ten-year follow-ups of SFP 10 to 14 to 22 years of age have resulted in two- to threefold reductions in lifetime diagnosed mental health problems (depression, anxiety, phobias, and personality disorders;
Long-term outcomes were also positive for reduced methamphetamine use (Spoth, Clair, Shin, & Redmond, 2006). New comparisons of the shorter SFP 10 to 14 to the longer SFP 3 to 5, 6 to 11, and 12 to 17 for higher risk families using the same populations and instruments found the longer version produced considerably larger outcome effect sizes (Kumpfer, Ahearn Green, Cofrin, & Whiteside, 2007).

The first international cultural adaptation and transport of SFP was to Australia in 1996 with funding from the Queensland government and then to Canada on a National Institute on Alcohol Abuse and Alcoholism grant (Maguine et al., in press). New international culturally adapted and language-translated versions of the 14-session SFP have been developed for Australian, Canadian (First Nations Canadian, French Canadian, and Ontario), Spanish, Swedish, Dutch, Irish, Italian, Portuguese, Russian, and most recently Thai families. The Spanish adaptation was funded by the Spanish and Balear government and produced positive results among drug-addicted parents and their 8- to 12-year-old children (Orte, Fernández, & Pascual, 2007; Orte, March, Ballester, & Touza, 2007). The Dutch adaptation of SFP 12- to 16-year-olds by the Trimbos Institute also resulted in similar positive results with older youth (Onrust & Bool, 2006). A NIAAA-funded randomized control trial of the Canadian adaptation produced positive results among alcoholic parents and their 6- to 11-year-old children (Maguine et al., in press). The shorter seven-session SFP 10- to 14-year-olds for lower risk universal populations has been culturally adapted and implemented in several Central American countries (Costa Rica, El Salvador, Chile, and Peru) by the Pan American Health Organization, Sweden and Norway by STAD in Stockholm, and in the United Kingdom by Oxford Brooks University researchers (Allen, Coombs, & Foxcroft, 2006). SFP is included in most Web site lists of EB prevention programs recommended for adoption.

The Cultural Adaptation Process for International Transport

Developing cultural adaptations or accommodations of EB practices for international transport is a time-consuming process requiring careful assessment of the local political, religious, and economic context as well as the cultural norms and family practices of country and internal ethnic groups. It should be a careful and rigorous process properly guided by research and theory (Barrera & Castro, 2006). The first international contact generally is a request for more information on SFP by staff from a local agency or regional or country ministry or government. An assessment of the “fit” of
SFP to their needs, administrative and family context, and implementing agencies is made, as well as which age version is most needed. International funders and providers are often concerned about whether programs developed in other countries can be successfully implemented with similar positive results within their cultural and social context. Also, they have questions about how much they can alter the program for their families without violating fidelity to the model (Blakey, 1987). Some authors (e.g., Castro, Barrera, & Martinez, 2004; Resnikow, Soler, Braithwaite, Ahulwali, & Butler, 2000) have proposed that cultural adaptation might include changes at the surface (e.g., graphics) or deep-level structure of the program (incorporation of cultural norms and values) and demand for a comprehension of specific cultural nuances and cultural competence. One overriding principle in the transport of SFP to other populations is that fidelity includes cultural adaptation but not modification of program components, timings, or overall structure. Adding culturally appropriate welcomes, blessings on the group, songs, stories, dances, exercises, examples, pictures, videos, and other material are examples of cultural adaptation. Cutting the length of the program, omitting or combining lessons, changing the topics of lessons, rearranging or omitting session content, or omitting homework assignments are modifications that have been found to reduce effectiveness compared to the original version (Kumpfer, Alvarado, Smith, & Bellamy, 2002).

SFP research studies suggest that cultural adaptations of at least the “surface structure” level are critical to engaging and retaining participants. Families are more likely to attend the program if it honors their cultural values and traditions (Kameoka, 1996). Cultural adaptations should be completed following a well thought out process or steps to adaptation. The recommended international transport and cultural adaptation process used is as follows.

1. **Gather needs assessment data on etiological precursors.** One should pick the EBP that best matches the needs of the target population. If local needs assessment data do not exist from incidence and prevalence surveys that also include risk and protective factor precursors of the problem behavior that is to be prevented, then one should conduct a special needs assessment. This needs assessment may include diverse methodologies to tap particular characteristics of a given population and the most pressing problems or risk conditions. Tested etiological theories of precursor mediators are better than unsubstantiated theories and should be checked for each new culture or international country. For instance, the theoretical underpinnings for SFP are the social ecology theory (Bronfenbrenner, 1979) and a more specific
social ecology model called the Social Ecology Model of Adolescent Substance Abuse and Delinquency (Kumpfer, Alvarado, & Whiteside, 2003). This structural equations model (SEM) model was tested using survey data from a large national sample (10,000 high-risk youth; Center for Substance Abuse Prevention, 2000; Turner, Sales, & Springer, 1998) and supported the importance of family-based interventions targeting increasing family bonding, effective discipline, and positive communication, including no-use expectations.

This theoretical model also was tested in Thailand, using an SEM approach, with more than 500 delinquent youth to determine which causal precursors needed to be addressed in programs to prevent substance abuse and delinquency in Thai youth (Rodnium, 2007). These results provided a replication of those obtained in the United States and also indicated an additional risk factor related to differential generational acculturation (due to effects of Western culture globalization). The theoretical model was used to select the best programs to transport to Thailand and to support critical cultural adaptations.

2. Careful selection of the best EBP to Culturally Adapt and Transport. A number of factors should go into selecting the best program for a local population—namely, age of children, ethnicity and language, length, cost, staff required, outcomes improved, and level of dysfunction (low-risk universal families, selective high-risk families, or indicated-in-crisis families), to name a few. In addition, if one can find Web sites or reports that include meta-analyses of effect sizes (e.g., Cohen’s d), one would want to pick the program with the largest effect size or amount of change for the investment. One should consider the level of evidence of effectiveness rating based on the quality of the research, amount of research, and whether the program has been replicated in another country by independent researchers (Flay et al., 2005). Then, one should narrow the search to two or three programs and conduct focus groups of parents or staff to review the materials. Also, one should consider whether training and technical assistance is available.

3. First implement the original program materials. Although immediate translations to the manuals and particularly the parent and children’s handouts are necessary, substantial cultural changes to manuals should not be made until after several pilot tests. One should first implement the program as written, except for minor changes in the songs, examples, and wording to match local culture and context better. Then, one should check to see what
works well and not so well. The implementers should form a collaborative partnership with the families and the group leaders to improve the program for their type of families. A process evaluation should document successes and barriers to inform future adaptations.

4. Staff selection and training/supervision to assure quality implementation. Careful selection of the staff is critical to successful implementation of any EBP, and quality training tends to increase practitioners willingness to implement them (Sanders & Turner, 2005) and improve fidelity (Webster-Stratton, 2007). Not all of the outcomes are due to the curriculum or treatment process. In prevention work, there is little research on implementer characteristics or attributes that lead to better outcomes. In research on SFP transport, we have learned there is wisdom behind our two co-leader model. Some desired outcomes are improved by a warm and empathetic leader and others by an organized task master who will work the families harder to elicit positive behavioral changes (Park & Kumpfer, 2005). However, demanding that only clinicians highly trained in academic settings implement the program can create a barrier to program dissemination. Staffing partnerships between academic and private institutions should be explored (Rotheram-Borus & Duan, 2003). In SFP, a for-profit organization, LutraGroup SP, serves as the National SFP Training and Evaluation Center and provides all training and supervision services. Implementation staff should be certified. In the United States, this occurs after participation in a 2- to 3-day training workshop. LutraGroup has decentralized trainers in many states and countries to reduce travel costs. A training team of two trainers for the group leader workshops consists ideally of a man and a woman who are ethnically and linguistically matched to the target population.

For international dissemination, training systems have been authorized by LutraGroup in foreign countries (i.e., Canada, Sweden, Spain, Portugal, Netherlands, United Kingdom, Ireland, and Thailand). To qualify to be a trainer of group leaders, former group leaders with considerable experience will generally co-train with a LutraGroup trainer several times until they are “certified” ready to train other group leaders and contracted by LutraGroup to do a training workshop. Training teams (pairs of men and women) in countries outside the United States are then approved by LutraGroup to conduct other trainings in their country. The training protocols are tailored to local cultural traditions that may prefer shorter workdays (starting later but sometimes ending later), more time for breaks or lunch than the 1 hour American lunch, and more time for discussion. These changes often require
the training to be covered in 3 to 5 days rather than 2 days, particularly if parts of the training of trainers are conducted in English with PowerPoints in the local language and the use of translators, which require extra time. Using videos to illustrate the SFP main skills facilitates its comprehension and reduces the length of time dedicated to the training. Experiential role-playing with the local trainees preparing and delivering parts of the SFP curriculum during the workshop while demonstrating creative cultural adaptations has worked well in the past. Group leaders should be culturally competent (Webster-Stratton, 2007), and so the SFP training program also includes discussions of the possible ways of making the program culturally relevant for a given population.

5. Program implementation with fidelity and quality. The next step is to implement the program with high fidelity and quality. LutraGroup supports process evaluations using weekly session ratings by group leaders and supervisors, fidelity checklists, site visits by the program developers and cultural adaptation team, and in some cases videotapes sent to the original program developer. Fidelity does not insure quality, and so client evaluations are considered. In concordance with other researchers that found that Web-based consultation and supervision facilitates program disseminations and increases implementation fidelity (Sanders, Turner, & Markie-Dadds, 2002), a Web-based 16-week supervision course was developed in 2002.

6. Cultural adaptations made continuously with pilot groups. The process of cultural adaptation is continuous, based on family and group leader feedback and evaluation during pilot testing. Using weekly session feedback forms, the group leaders document any changes throughout program implementation, reporting every week what has worked well or has not work well. These notes are then added to the curriculum to make the suggested cultural changes to the written materials. Updating the materials is not strictly for cultural accommodations but is also on the basis of new research or historical and global experiences to be more acceptable for families—particularly clothing fashions in video or graphic materials (Allen et al., 2006; Hecht et al., 2003; Holleran Steiker, in press). In general, the most effective cultural or international adaptations are those where the sections of each lesson are kept the same. However, some adaptations may be made in program delivery (e.g., preferred time, location or delivery mode, and leader characteristics; Castro et al., 2004). The activities and examples are made more locally culturally relevant—changing details such as names,
songs, teaching stories, food, dances, art activities, and food—to those matching the culture. For instance, designing the graduation party to match entertainment activities of the culture (e.g., dance, music, food, speakers, and gifts) improves recruitment. In Portugal, meals are delivered at the end of the sessions instead of the beginning to accommodate preferred dining hours. In Spain, meals were provided at the end of the children’s school day.

7. **Revisions of the program materials to improve engagement of families.** Results of the evaluation performed with pilot groups, in regard to fitness of the adaptations, may then lead to program material revisions. One innovation is to offer group leaders a menu of options for each exercise for local adaptations. This increases leader buy-in and cultural fit. The more ambitious cultural adaptations have involved making new video materials, as was done in Spain (Orte, Fernández et al., 2007) and the United Kingdom (Allen et al., 2006).

8. **Empowerment evaluation to improve outcomes.** The evaluator hired to work on the evaluation should start from the beginning of the program design and follow a participatory research and empowerment evaluation framework (Fetterman, Kaftarian, & Wandersman, 1995). This approach suggests effective methods for developing practical collaborations between researchers, practitioners, clients, and policy makers to improve program implementation in the field. Of course, the evaluation methods should be pilot tested and revised, as needed, to be culturally appropriate, including surveys, data collection methods, and reporting methods. Having reliable and valid tests also facilitates SFP implementation in different countries. LutraGroup evaluators provide evaluation support using standardized process and evaluation materials, which are included in the CD containing the master set of the training manuals. A database of more than 2,500 families provides national or international norms for comparison to local agency outcomes on 18 outcome variables with change scores and effect sizes reported.

9. **Disseminate the results of the effectiveness of the culturally adapted version.** The process and outcome research results and lessons learned in transportation of the EB model should be published to improve the field’s knowledge on the effectiveness of culturally adapted or modified versions of EB models. Additionally, research on factors affecting selection and adoption of EBPs is also needed to promote the wider dissemination of effective family programs capable of reducing adolescent problems.
Conclusion: Technology Transfer of Evidence-Based Interventions

Despite considerable research suggesting evidence of effectiveness for a number of prevention interventions (and particularly family interventions) in improving children’s outcomes, only about 10% of prevention programs are EB; 30% are commercially marketed programs, and about 60% are non-EBPs often developed by practitioners (Arthur & Blitz, 2000). Currently, the authors are involved in international efforts to learn the extent of dissemination of effective family skills training programs and develop a protocol to accelerate dissemination internationally for the U.N. Office of Drug Control in Vienna, Austria. An international search as been conducted and family research experts met to provide guidelines for this U.N. protocol on international dissemination of family skills training programs. Unfortunately, diffusion is hampered by policy makers, researchers, and program administrators having differing criteria for evidence of effectiveness (Kellam & Langevin, 2003). Researchers have widely accepted the Chambless and Hollon (1998) or Society for Prevention Research criteria (Flay et al., 2005) as the standard for defining EBPs. Although federal agencies are mandating that practitioners spend federal funds only on effective programs, unfortunately each agency uses different criteria to define effectiveness, thereby producing incompatible EBP lists. Federal and international agencies should agree on standardized criteria to make the results compatible and understandable to practitioners (Rada, Ratima, & Howden-Chapman, 1999). Several barriers to EBP implementation in field settings have been identified from clients and practitioners, including intervention structure and organizational factors (August et al., 2004; Sanders & Turner, 2005). For whatever reasons, practitioners often do not implement EBPs but prefer to create their own programs. Although this increases practitioner buy-in and enthusiasm for the program, the effectiveness is not known until tested in randomized control trials. A better strategy is to select and adapt the best fit EBP for their local population. The slowness of the EBP diffusion from research to practice is costly for society (Backer, 2000; Biglan, Mrazek, Carnine, & Flay, 2003; Biglan & Taylor, 2000; Kumpfer & Kaftarian, 2000). More research on how to encourage practitioners to adopt and culturally adapt EBPs would be extremely valuable. Investment in international training and technical assistance systems and community–university partnerships (Spoth & Molgaard, 1999) would increase providers’ capacity to implement EBPs with fidelity, as, for example, has been done in Spain.
Diffusion of innovations applied research (Backer, 2000; Biglan & Taylor, 2000; Rogers, 1995) should be increased to study barriers and facilitators influencing the international transport of EBPs without compromising fidelity and effectiveness (Kazdin, Holland, & Crowley, 1997).

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