Cultural Adaptation of Interventions in Real Practice Settings

Flavio F. Marsiglia & Jamie Booth

Southwest Interdisciplinary Research Center (SIRC)

School of Social Work - Arizona State University

February 2013

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Abstract

This article provides an overview of some common challenges and opportunities related to cultural adaptation of behavioral interventions. Cultural adaptation is presented as a necessary action to ponder when considering the adoption of an evidence base intervention with ethnic and other minority groups. It proposes a roadmap to choose existing interventions and a specific approach to evaluate prevention and treatment interventions for cultural relevancy. An approach to conducting cultural adaptations is proposed, followed by an outline of a cultural adaptation protocol. A case study is presented and lessons learned are shared as well as recommendations for culturally grounded social work practice.

Introduction

Culture influences the way in which individuals see themselves and their environment at every level of the ecological system (Greene & Lee, 2002). Cultural groups are living organisms with members exhibiting different levels of identification with their common culture and impacted by other intersecting identities. Because culture is fluid and ever changing, the process of cultural adaptation is complex and dynamic. Social work and other helping-professions have attempted over time to integrate culture of origin to the interventions applied with ethnic minorities and other vulnerable communities in the US and globally (Sue & Arredondo & McDavis, 1992). In an ever changing cultural landscape, there is a renewed need to examine social work education and the interventions social workers implement with cultural diverse communities.

Cultural competent social work practice is well established in the profession and it is rooted in core social work practice principles (i.e., client centered and strengths-based). It strives to work within a client's cultural context to address risks and protective factors. Cultural

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competency is a social work ethical mandate and has the potential of increasing the effectiveness of interventions by integrating the clients' unique cultural assets (Jani, Ortiz & Aranda, 2008). Culturally competent or culturally grounded social work incorporates culturally-based values, norms, and diverse ways of knowing (Morano & Bravo, 2002; Kumpfer, Alvarado, Smith, & Bellamy, 2002).

Despite all the awareness about the importance of implementing culturally competent approaches, it is for practitioners to continue to place themselves at the center of the provider-consumer relationship. Having too much power and undervaluing the capabilities of the clients tend to result in a type of social work practice that is culturally incompetent and non-efficacious (Seghal, et al., 2011). For example, when some clients do not conform to the content and format of existing interventions, they are easily labeled as being resistant to treatment (Lee, 2010). In other cases, when clients fail to adapt to a given intervention that does not feel comfortable to them, the relationship is terminated or the client simply does not return to services. Thus, terms such as non-compliance and non-adherence may hide deeper issues related to cultural mismatch or a lack of cultural competency in the part of the practitioner.

Culturally grounded social work challenges practitioners to see themselves as *the other* and to recognize that the responsibility of cultural adaptation resides not solely on the clients but involves everyone (Marsiglia & Kulis, 2009). Practitioners, however, need to have access to interventions or tools that are consistent with the culturally grounded approach. Existing evidence-based interventions need to be assed for appropriateness and if needed they need to be adapted so that they are more relevant and engaging to clients from diverse cultural backgrounds, without compromising their effectiveness. This process of assessment, refinement, and adaptation of interventions will lead to a more equitable and productive helping relationship.

Interventions may not need to be culturally adapted to every individual at every point in time. Adaptations, however, may need to be updated over time, as intersecting identities must be considered (i.e., ethnicity, gender, SES, sexual orientation, migration status) in the adaptation process and that adaption does not necessarily meet the needs of every individual in a given group. Cultural adaptation of evidence-based interventions does not negate the social worker's responsibility to investigate and respond to an individual's unique cultural perspectives. Despite the challenges posed by the dynamic nature of culture, cultural adaptations of evidence-based interventions are essential to effectively meet the needs of diverse communities.

Although culturally tailoring prevention and treatment approaches to fit every individual may not be feasible, culturally grounded social work aims at adapting existing interventions when necessary while maintaining the fidelity or scientific merit of the original evidence-based intervention (Sanders, 2000). This article discusses the need for cultural adaptation, presents a model of adaptation from an ecological perspective, and reviews the adaptations conducted by the Southwest Interdisciplinary Research Center as a case study. The discussion section connects the premises of this article with the existing literature on cultural adaptation and identifies some specific unresolved challenges that need to be addressed in future research.

Evidence-based interventions

Evidence-based interventions have become the gold standard in social work practice and involve the "conscientious" and "judicious" application of the best research available in practice (Sackett, et al., 1997, p. 2). It is commonly believed that utilizing EBP only requires the practitioner to locate interventions that have been rigorously tested using scientific methods, implement them, and evaluate their effect; however EBP acknowledges the role of individuals and relationships in this process. EBP requires the integration of evidence and scientific methods

with practice wisdom, the worldview of the practitioner, and the client's perspectives and values (Howard, McMillen & Pollio, 2003; Regeher, Stern & Shlonsky, 2007). The clinician's judgment and the client's perspective are not only utilized in the selection of the EBP intervention; they are also influential in how the intervention is applied within the context of the clinical interaction (Straus & McAlister, 2000). For example, there is some consensus about the importance of the clients' involvement in the evaluation, appraisal, and application of EBP (Regeher, et al., 2007). EBP in social work aims at integrating the perspectives of the clients with what occurs in practice by addressing the arguments that have been made against the applicability of EPB (Gibbs & Gambrill, 2002).

Achieving a balance between both the client and the practitioner's perspective and the application of EBPs is essential for bridging the gap between research and practice (Howard, McMillen & Pollio, 2003). However, the inclusion of the clinician's judgment and the client's history potentially muddles the scientific merit of what is being implemented. This is the fundamental tension and challenge when implementing EBP. It is also the reason for the gap that exists between research and practice (Regeher, Stern & Shlocky, 2007).

Practitioners are aware that the evidence generated by randomized control trials may not be applicable to the diverse needs of their clients or adequately address the complexity of the clients' life (Webb, 2001; Witkin, 1998). The attraction of EBP is clear; utilizing empirically tested treatment and prevention interventions allows social workers to feel more confident that they will achieve the desired outcomes and provide clients with the best possible treatment, thereby fulfilling their ethical responsibility (Gillgun, 2005). Despite this clear rationale, the utilization of EBP is limited (Mullen & Bacon, 2004) and when it is applied, interventions are rarely implemented in the manner the authors of the intervention intended.

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Culture and the ecological systems approach

The ecological systems approach provides a structure for understanding the importance of cultural adaptation in social work practice. Situated on the outer level (macro level) of the ecological system, culture frames the norms and values that operate on every other level: individual beliefs and behaviors (micro level), family customs and communication patterns (mezzo level), and how that individual perceives and interacts with the larger structures (exo level), such as the school system or local law enforcement (Szapocznik & Coatsworth, 1999). In this approach, the relationships between individuals, institutions, and the larger cultural context within the ecological framework are bidirectional, creating a dynamic and rapidly evolving system (Bronfenbrenner, 1977; Gitterman, 2009).

For example, a group of children may be strongly influenced by their group worker in a mental health clinic; while at the same time the children's parents may be actively involved in changing the climate of the behavioral health center, thereby impacting the relationship between the children and the social worker. The bidirectional nature of relationships is an important concept to consider when discussing the cultural adaptation of social work interventions for two reasons: 1) regardless of the setting, in social work practice the clients and the social workers engage in work partnerships in which both parties must adapt to achieve a point of mutual understanding and communication, and 2) culture is in constant flux as individuals interact with actors and institutions working to maintain or shift cultural norms and values over time.

Although culture is a collective phenomenon its expressions and manifestations can be unique to the individual. Recent immigrant parents, for example, often encounter unique challenges coping with the changes in behavior of their young acculturating children. Within one family there can be competing and contradictory interpretations and definitions of what

constitutes a culturally normative behavior. Children's perception of their own culture of origin

maybe equally shaped by influences from home, school, peers, and the social networks and other

media. Developmentally targeted interventions may require additional adaptations in order to

better integrate ethnic culture in its approach. On the other hand, interventions that are culturally

specific may need to be adapted to accommodate within group differences in acculturation. In

either case, the best place to start is by identifying an existing evidence-based intervention that

addresses the main behavior one wants to impact and assess its cultural relevancy.

Evidence-based interventions and cultural competence

Practitioners have tendency to spontaneously adapt interventions because they do not feel

comfortable with the original format or content or because they assume that there is not a good

cultural match between the intervention and the clients they serve (Kumpfer, Alvarado, Smith &

Ballamy, 2002). Evidence-based interventions, however, can only be expected to achieve the

same results as those observed when originally tested, if they are implemented with fidelity or

strict adherence to the program structure, content, and dosage (Solomon, et al., 2006; Dumas et

al, 2001). Compromises in fidelity may occur due to a lack of knowledge or adequate training.

They can also occur out of necessity when social workers or other professionals are bound by

resource constraints or there is a cultural mismatch between the program and the participant

(Gordon et al., 2005).

Some adaptations are made consciously, but also there are adjustments that are made

quickly during the course of implementation and based on clinical judgment (Bridge, Massie, &

Mills, 2008; Castro, Barrera, & Martinez, 2004). Practitioners naturally adapt interventions

because they want the intervention to be more culturally relevant (Mistry, Jacobs & Jacobs,

2009). Although adaptations are typically made in response to a perceived need, when they are

not done systematically, based on evidence and with the core elements of the intervention preserved, the efficacy that was previously achieved in the more controlled environment may not be replicated (Kumpfer, Alvarado, Smith & Ballamy, 2002). Informal adaptation has the potential of compromising the integrity of the original intervention, thus negating the value of the accumulated evidence that supports the intervention's effectiveness.

When fidelity is the main concern, no changes in the intervention are advisable. If cultural competency and congruence are also a concern, fidelity cannot any longer be the only concern. Interventions are more effective when implemented with fidelity (Durlak & DuPre, 2008) but on the other hand, interventions are more effective when they are culturally adapted because they ensure a good fit (Jani, Ortiz, & Aranda, 2008). These different perspectives highlight the tension in the field between implementing manualized interventions exactly as they were written versus to adjusting them to fit the targeted population or community (Norcross, Beutler & Levant, 2006).

Although this debate is far from resolved, theories of adaptation have been developed that allow the researcher/practitioner to adjust the fit without compromising the integrity of the intervention (Ferrer-Wreder, Sundell, Mansoory, 2012). If the cultural adaptation is done systematically, it has the potential of maximizing the benefit of the fit, as well as the benefit of the EPB, thus providing a strategy that addresses many of the concerns surrounding EBPs' applicability in social work practice (Castro, et al., 2004).

Cultural adaptation

The primacy of scientific rigor over cultural congruence is often mentioned as a weakness of EBP interventions, however, when working with real communities both must be satisfied to the highest degree possible (Regeher, Stern, & Shlonsky, 2007). One potential

solution to the possible tension that might arise between using culturally relevant practices and EBPs may be found in locating interventions that have been designed for and tested with a given cultural group. However, the limited availability of culturally specific interventions with strong evidence-base may create barriers to this approach. Despite the progress that has been made to date, most empirically supported interventions are developed for and tested with middle-class white Americans, with the assumption that evidence of efficacy with this group can be transferred to non-majority cultures, which may or may not be the case (Kumpfer et al., 2002).

For example, a prevention intervention with Latino parents found that assimilated, highly educated Latino parents were responsive to the prevention interventions presented to them, while immigrant parents with less education were less likely to benefit (Duka, Lopez & Jacobs-Carter, 2002). A natural next step in this case would be to engage the recent immigrant parents in focus groups to elicit their help on how the intervention needed to be adapted to better meet their needs. Conducting the adaptation of the EBP may be more feasible than the work of creating and testing a new intervention that will meet the needs of the immigrant parents. If a cultural and contextually specific intervention exists with a strong evidence, it is certainly preferable to select that intervention; however, in the absence of an EBP designed and tested for the population being served, adaptation may be a more viable and cost-effective option for systematically merging a client's cultural perspectives/values and the EBP (Steiker et al., 2008; Howard, et al., 2003).

Program adaptation is defined as " any deliberate or accidental modifications, such as deleting or adding components, changing the nature of components, changing the way the program is administered, and cultural modifications to the program" (Backer, 2002, p. 5). There is a strong risk of compromising the effectiveness of the EBP when unstructured cultural

adaptations are implemented in response to perceived cultural incongruences (Solomon, Card, & Malow, 2006; Miller, Wilbourne, & Hettema, 2003; Kirk & Reid, 2002; Kumfer & Kaftarian, 2000). On the other hand, systematically adapting an intervention may increase the odds that the treatment will be implemented with fidelity and that it will achieve similar results than those found in more controlled environments (Ferrer-Wreder, Sundell, & Mansoory, 2012).

Cultural adaptation may not only preserve the EBPs effectiveness, but it may also enhance the results attained in clinical trials (Kelly, et al., 2000). Culturally adapted interventions have the potential to improve both client engagement in treatment and outcomes, and might be indicated when either rate falls below what could be expected based on previous evidence (Lau, 2006). Adapting interventions in partnership with communities also enhances the community's commitment and the chances that the program will be sustained overtime (Castro, Barrera, & Martinez, 2004).

For example, efforts to adapt HIV prevention programs culturally, linguistically, and developmentally, and have improved the communities receptiveness, retention, outcomes, and satisfaction, in addition to retaining high levels of fidelity (Kirby, 2002; Wilson & Miller, 2003; Raj, Amaro & Reed, 2001). Cultural adaptations in the HIV field aim at modifying the messages and protocols in order for them to sound and feel natural or familiar intellectually and emotionally to individuals, families, groups and communities.

Once interventions are culturally adapted, the likelihood that individuals will stay engaged and will adopt behavioral changes increases. For example, some interventions that foster a collective identity and interdependence within the family, have been found to have a greater chance of achieving the desired health outcomes when working with low acculturated Latinos (Fitzgibbon, Gapstur, & Knight, 2004; Jani, Ortiz, Aranda, 2008). In an evaluation of a

culturally adapted version of the Strengthening Families intervention, there was a 40% increase in program retention when it was culturally adapted, but the outcomes of those who completed the program were not significantly better (Kumpfer, Alvarado, Smith, & Bellamy, 2002). This increase in retention is still important because it expands the potential to reach and impact a higher number of individuals. In addition, some evidence has emerged that culturally adapted interventions not only increase retention but are also more effective. In a recent meta-analysis, culturally adapted treatments had a greater impact than standard treatments, produced better outcomes, and were most successful when they were culturally tailored to a single ethnic minority group (Smith, et al., 2010).

For example, in the case of Latino families, differential rates of acculturation between parents and youth appear to be risk factors for substance use and delinquency among youth, indicating that family-based interventions may be the most culturally relevant intervention (Martinez, 2006). Aspects of an individual's culture of origin such as the centerness of family in the social life of young people may be a protective factor against a variety of negative outcomes (Marsiglia, et. al, 2012). When considering traditional norms and values of Latino families -such as loyalty and connection to family- intervening at the family level can prevent problem behaviors among the youth (German, Gonzales, & Dumka, 2009).

Adaptations are often conducted as a means to acknowledging and addressing within group differences. Different acculturation experiences, for example, may reflect the different pathways and outcomes resulting from the members interactions with majority culture. A far-reaching acculturation process may lead to a fast assimilation into the host society and to a detachment from the protective values and norms of the culture of origin (Marsiglia & Kulis. 2009). In such cases, interventions can help participants reconnect to their culture of origin

through a process often referred to as enculturation (Greenfield & Quiroz, 2013). Other individuals can be at the other end of the spectrum and remain so strongly rooted in their culture of origin that may be placing themselves in the margins of society and cannot benefit from social mobility. This experience of marginality results from either structural inequality or from the conscious choice of preserving their culture of origin within the new environment (Portes & Zhou, 1993). Most immigrant families and youth, however, tend to develop a bicultural identity, integrating aspects of their culture of origin with aspects of the host culture. This bicultural identity has been found to be protective against acculturation stress (Berry, et al., 2006). Failing to integrate these known cultural strengths may result in ineffective interventions or interventions that do not achieve their full potential.

Cultural adaptation is an emerging science that aims at addressing these challenges and opportunities to enhance the efficacy of interventions by grounding them in the lived experience of the participants. Engagement in the adaptation process also provides social workers/ researchers with opportunities to build on their cultural strengths and address population-specific risk factors, in other words, it builds practice and research capacity (Maldonado-Molina, Reyes & Espinosa-Hernandez, 2006).

An emerging roadmap for cultural adaptation

There is an emerging literature describing strategies and processes to systematically adapt interventions while insuring a more optimal cultural fit without compromising their integrity of scientific merit (Kadzin, 1993; La Roche & Christopher, 2009). When implementing an EBP, there is some consensus that adaptation needs to be considered as an option when: 1) A client's engagement in services falls below what is expected, 2) Expected outcomes are not achieved, and 3) Identified culturally-specific risks and/or protective factors need to be incorporated into

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the intervention (Barrera & Castro, 2006). Although statistical techniques, qualitative approaches, and mixed methods can be utilized to assess the need for adaptation, clinical judgment is a strong source of wisdom when making these determinations (Barrera & Castro, 2006).

Once the determination is made to conduct an adaptation, there are a variety of models that one could follow but most of the research in this area has focused on adapting the content of the intervention (Farrer-Wreder, Sundell & Mansoory, 2012). ***Content models*** identify a whole array of domains that may be crucial to address when conducting an adaptation. The ecological validity model, for example, focuses on eight dimensions of culture: language, persons, metaphors, content, concepts, goals, methods, and social context (Bernal et al., 2009). While the cultural sensitivity model identifies two distinct content areas: *deep culture*, which includes aspects of culture such as thought patterns, value systems, and norms, and *surface culture*, which refers to elements, such as language, food, and customs (Resnicow, Braithwaite, Ahluwailia, & Baranowski, 1999).

Proponents of the cultural sensitivity model argue that both aspects of culture should be assessed and potentially addressed if areas of conflict or incongruence between the culture and the intervention are identified Resnicow et al., (2000). Surface adaptations allow the participants to identify with the messages, potentially enhancing engagement; while, deep culture adaptations insure that the outcomes are impacted (Resnicow et al., 2000). A narrow understanding of culture may miss deeper narratives that are impacting the participant's interpretation of the prevention/intervention messaging and/or the relevance of those messages in their lives. Deep culture includes a consideration of culture-specific mediators and group-specific etiologies of the social problems being addressed in the intervention (Farrer-Wreder, Sundell & Mansoory, 2012).

There is a set of content areas -at the surface and deep levels- that have been identified as essential to consider in the adaptation process: cognitive, affective, and environmental. *Cognitive-informational* aspects refer to language, age, and developmental congruence; *affective-motivational* refers to content that is appealing to the participants and congruent with norms and values; *environmental* includes relevance to the participant's lived experience (Castro, Barrera, and Martinez, 2004; Castro, Barrera, & Steiker, 2010).

Cognitive adaptations are considered when participants cannot understand the content that is being presented due to language barriers or the use of information that is not relevant in an individual's cultural frame. Vignettes given by the original intervention, for example, may not be relevant to the participants or may be offensive due to spiritual or religious taboos. The content may create a negative reaction from the participants which in turn may block their ability to hear and integrate the message. It is that content that needs to be modified while the core elements of the intervention are respected.

Affective-motivational adaptations are indicated when program messages are contrary to cultural norms and values, creating a resistance to change within the individual (Castro et al., 2001). Environmental factors (later referred to as *relevance*) make sure that the contents and structure is applicable to the participants in their daily lived experience (Castro, Barrera, & Steiker, 2010).

The adaptation model chosen may be more cognitive or affective in its focus but usually at a minimum adaption process will follow two systematic steps: 1) identifying mismatches between the original intervention and the client's culture, and 2) testing/evaluating changes that have been made to rectify these disparities (Farrer-Wreder, Sundell & Mansoory, 2012).

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Most adaptation models begin with building a partnership or coalition with members of targeted community, the community partners are on board from the start of the process (Harris et al., 2001; Sundell & Ferrere-Wreder, 2011; Castro et al., 2010; Wingood & DiClemente, 2008). Sometimes the evidence-based intervention that will be adapted is selected at this stage; however, more information is often gathered about the targeted population before selecting the invention that would provide the best fit (Kumpfer et al., 2008; Mckleroy et al., 2006; Wingood & DiClemente, 2008). Whether the intervention has yet to be selected, extensive formative research is conducted to assess the etiology of the social problem that is the target of the intervention, possible population-specific risks and protective factors, and measurement equivalence to determine the degree of fit (Harris et al., 2001; Sundell & Ferrere-Wreder, 2011). Some information about the target community may be gained by reviewing relevant literature; however, interviews, focus groups, and surveys are also used to collect primary data about the social and cultural determinants of health that may impact the outcome of the intervention, or be in conflict with the program's messages/implementation strategies.

At this point in the process, some adaptation models recommend making changes based on the formative research (Harris et al., 2001; Domenech-Rodriguez & Wieling, 2004); while others suggest implementing the intervention with minimal changes while assessing the need for further adaption. The Planned Intervention Adaptation model suggests making significant changes to one version of the intervention while making minimal changes to another implementing them both to test the differential effects (Sundell and Ferrer-Wreder, 2011; Castro et al., 2010; Kumpfer et al., 2008).

Regardless of the level of adaptation, the modified intervention is pilot-tested and base on the outcomes subsequent adaptations are made (Ferrer-Werder, et al, 2012). Once a final

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adaptation has been made, further testing takes place in effectiveness trials. Across all theories of

adaptation, the process is iterative with refinements made to the intervention at every stage,

based on the evidence generated in the prior stage (Domenech-Rodriguez & Wieling, 2004).

Regardless of the depth of changes made, the intervention must be rigorously tested to ensure

that the effects of the original EBP are preserved after any changes have been made.

The SIRC approach

Over the past 10 years of health disparities research, The Southwest Interdisciplinary

Center (SIRC) has developed a process of cultural adaptation that includes all of the elements

previously outlined. The specific adaptation model utilized at SIRC is an expanded version of the

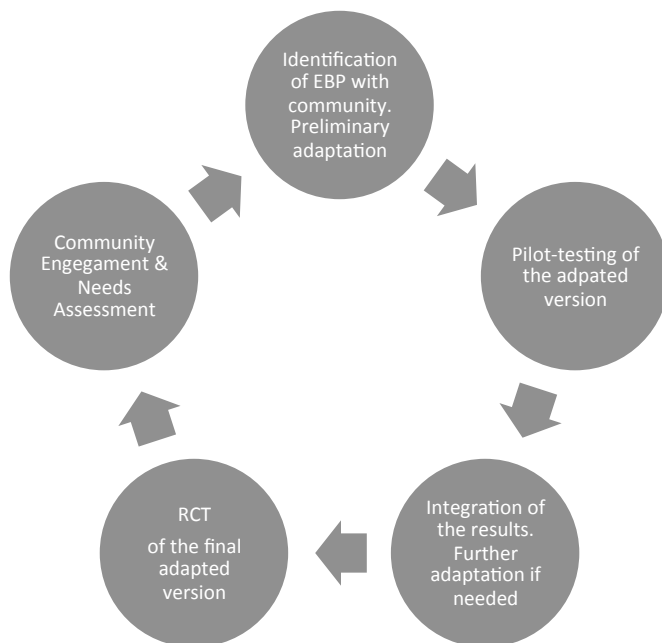Barrera and Castro (2006) model as illustrated by Figure 1.

Figure 1: The SIRC Adaptation Model

SIRC engages community partners from the beginning of any adaptation process to full effectiveness trial following the adaptation refinement. This process was followed many times due to identified developmental and cultural needs.

The purpose of the project was to culturally adapt *keepin' it REAL*, (Marsiglia et al., 2005) to be used in Mexico. Keepin'it REAL is a culturally grounded, school-based primary prevention program, recognized by the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) as a model program. A research partnership was built with a faculty member at the University of Guadalajara, and she, in turn, built the relationships with the schools in the target area.

After this relationship was established, the bi-national team began gathering more information about the context of substance use in Mexico by conducting exploratory research with the target population. The team assessed the population-specific risks and protective factors and the cultural relevance of core components of *keepin' it REAL*. Prior to the implementation of the adapted intervention, surveys were conducted exploring the relevance and effectiveness of the drug resistance strategies (a core component of the curriculum) in the Mexican context (Kulis et al., 2008). After an assessment of the cultural context was completed and the intervention was deemed appropriate, and with the knowledge that it may need further adaptation, the intervention was implemented with minimal changes and pilot tested. Specifically, the k*eepin' it REAL* manual and the participants' workbook were translated into Spanish and the intervention was implemented in its original form with surface modifications. After implementation, the intervention's effectiveness was tested to assess the necessity of further adaptation. Following the implementation of *Keepin' it REAL*, empirical evidence emerged that the program effectively taught drug resistant strategies and reduced substance use in Mexican adolescents;

however, both surveys and focus groups identified some cultural mismatches and areas of possible adaptation (Kulis et al., 2008). For example, the focus groups revealed that the videos used to teach drug resistance strategies did not present scenarios that were relevant to the Mexican youth. Based on this feedback, it was decided that new videos would be made in partnership with Mexican youth, which would more accurately reflect their lived experiences.

This method of adaptation does not change the core elements of the original intervention, but does address aspects of deep culture (Steiker et al., 2008). Because the youth wrote and acted in the videos, they were able to construct scenarios that accurately reflected their cultural norms and values. Gender differences in program effectives were also observed, suggesting that the intersection between gender and race were important to consider within the Mexican context. Although the intervention has not yet been modified to account for the observed interaction of gender, further research is being conducted to explore the lived experiences of female adolescents living in Mexico and how this aspect impacts substance use norms, attitudes, and behaviors. After the adaptations have been completed and implemented, a randomized control trial will be conducted to test the effectiveness of the intervention and assess any added value of the adapted version versus the original.

Adaptation in social work practice

The previously discussed models are based on collaborations between practitioners and researchers, where researchers take the lead in the formative assessments, adaptations, and evaluations of effectiveness. In many social work practice settings, this process might look different, although it is recommended that regardless of the setting a partnership with the intervention designers be developed if significant modifications are going to be made to the original intervention. The CDC has devised a set of practical guidelines for practitioners who are

assessing the need to adopt an EBP (McKleroy et al. 2006). The CDC strongly discourages

adaptors to change any of the deep structures of the intervention. In the CDC model, as in the

SIRC model, the adaptation process starts with the selection of an intervention that best matches

the population and context (Solomon et al., 2006).

The selection of an EBP is based on an initial assessment of the targeted population and

an exploration of possible EBP variations (Farrer-Wreder, Sundell & Mansoory, 2012).

Assessments of the population can be made through a review of the literature and by conducting

interviews with key informants or focus groups with potential participants. The initial assessment

of the population should go beyond potential participants' ethnicities to include multiple and

intersecting identities. Cultural adaptation frequently starts and stops with the identification of

race, without examining how age, gender, sexual orientation, religion, acculturation, and

geography shape culture. The lack of such identification information could potentially impact the

participants' experience with the intervention (Wilson & Miller, 2003). A thorough assessment

includes consideration for both deep and surface culture, as well as population-specific risks and

protective factors (Solomon, Card & Malow, 2006). During this initial phase, social workers

strive to find the best possible fit because the fewer modifications they make, the less likely the

fidelity of the intervention will be compromised in the adaptation process.

After the intervention is selected, the practitioner thoroughly evaluates the theoretical

underpinnings of the intervention and assesses the intervention in light of the cultural norms and

values of the clients being served (Green & Glasgow, 2006). The practitioner then systematically

works to reconcile any mismatches between the intervention and the participants' lived

experiences without altering the core components of the intervention (Green & Glasgow, 2006;

Solomon, Card & Malow, 2006). Core components are features of the intervention that are responsible for the intervention's effectiveness (Kelly, et al., 2000).

Although some interventionists have explicitly identified core components that must be preserved to ensure effectiveness, others have not, so it becomes the implementer's responsibility to uncover aspects of the intervention that cannot be changed or removed. Identifying the theory of change (i.e. cognitive behavioral theory, reasoned action, communication competency) is the most practical way of identifying core elements, although contacting the authors or conducting experiments are also possibilities (Solomon, et al., 2006).

After the intervention has been adapted to reconcile any conflicting mismatches, it is recommend to pilot tests the adapted intervention with a small group of participants (at least N=10) and conducting pre/post surveys and focus groups (McKleroy et al., 2006). Any information gleaned from this data will be used to further incorporate any adaptations into the intervention. The extent of adaptation must be determined by the level of mismatch between the intervention and the population being served (Barrera & Castro, 2006). Frequently, cultural adaptations only address surface aspects of culture while neglecting the deeper messages being communicated in the intervention. This is not necessarily bad practice. It is possible that changing the language, photographs, and the scenarios in an intervention is all that is needed to make it culturally relevant. There are, however, situations in which this is not sufficient (Resnicow et al., 2000).

As mentioned previously, surface adaptation allows participants in the program to identify themselves with the intervention, but it could fail to address the larger cultural norms that may be impacting the target behaviors or decision-making process. If it is determined that significant and/or deep changes are needed, the developers of the intervention need to be

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contacted and asked to assist the social worker in the process. It should be remembered that any changes have the potential to compromise the intervention's effectiveness need to be implemented with extreme caution. Social workers adapting interventions document all changes made to the original intervention and systematically evaluated the outcomes in order to ensure that the desired results are being achieved.

Case Study: Adaptations of *keepin'it REAL*

Keepin'it REAL (KiR) is the flagship EBP of SIRC (Marsiglia & Hecht, 2005). KiR is a manualized school-based substance abuse prevention program for middle school students. It was designed to (a) increase drug resistance skills among middle school students; (b) promote anti-substance use norms and attitudes; and, (c) develop effective drug resistance and communication skills (Gosin, Marsiglia, & Hecht, 2003). It was created and evaluated in Arizona through many years of community-based research funded by the National Institutes on Drug Abuse (NIDA) of the National Institutes of Health (NIH). It is a Model Program listed under SAMSHA's National Registry of Evidence-Based Programs and Practices (NREPP). There is strong evidence about the efficacy of the intervention with middle school Mexican American students (Marsiglia et al, 2005) but community-identified needs to rich-out to younger students and to students of other ethnic groups generated a set of adaptation efforts summarized in Figure 2.

As Figure 2 illustrates, *keepin' it REAL* was adapted for 5th grade students (Harthun et al., 2009) following the SIRC adaptation model and a RCT was conducted to test if the effects of the intervention increased by intervening earlier (5th grade versus 7th grade). Students who received the intervention in both the 5th and 7th grade were no different in their self-reported use of alcohol and other drugs than students who received the intervention only on the 7th grade (Marsiglia, et al, 2011). This effort did no yield the expected results but provided evidence from a developmental perspective that starting earlier was not cost-effective.

The second adaptation presented in Figure 2 was also community-generated and supported from the evidence gathered during the initial RCT of KiR. As Figure 3 illustrates, Urban American Indian youth were not benefitting from *Keepin' it REAL* as much as other children *(*Dixion et al., 2007). Following the principles of CBPR, a steering group, including leaders from the local urban American Indian community and school district personnel in charge of AI programs, was formed to guide the adaptation process. In addition to engaging community members and setting-up a structure to ensure a collaborative partnership, before beginning the

adaptation process, formative information was collected by consulting the literature to identify culturally-specific risks and protective factors and focus groups. Focus groups were conducted with both Native American adults and youth to explore culturally-specific drug resistance strategies that were frequently applied by urban Native American youth (Kulis, et al., 2013; Kulis & Brown, 2011).

Based on this information, collected in conjunction with four Native American curriculum development experts, *Keepin' it REAL* was adapted, and while maintaining its core elements, the content and structure were changed to be more culturally relevant to Native American youth (Kulis, et al., 2013). Changes to the curriculum included: 1) new drug resistant strategies that were identified by the American Indian youth as being more culturally relevant to them, 2) lesson plans designed to teach strategies in a more culturally relevant way, 3) more comprehensive content focusing on ethnic identity (a protective factor identified in the literature), and 5) a narrative approach in teaching content (Kulis, et al., 2013). In the initial pilot test of the intervention, results showed an increase in the use of REAL strategies indicating a promising effect. Based on pilot test feedback, the intervention has been further adapted and implemented on a larger scale through a RCT. The research team at SIRC is currently in the process of developing a parenting component to this intervention using the processes that were established in the development of the youth version.

Implementing and adapting *Keepin' it REAL* for the Mexican context is only one of the most recent adaptations done at SIRC. Collaborators in Jalisco-Mexico identified *keepin' it* as an EBP suitable for Mexico. The initial review of the intervention resulted in a "surface" adaptation consisting mostly of translating the manuals from English to Spanish and changing some of the vignettes that were not appropriate for Mexico. The Jalisco team recruited two

middle schools to participate in a pilot study of the initial adapted version of KiR. The schools

were randomized to control and experimental conditions. Implementors (teachers) and student

participants participated in in the regular classroom-based intervention for 10 weeks and in

addition were part of a simultaneous intensive review process of the intervention through focus

groups. The overall level of comfort and satisfaction with the intervention was high and the pre

and post-test survey results were also favorable. The main concern for teachers and students

were the videos that illustrate the REAL resistance strategies. The original videos were dubbed

into Spanish but the story lines, the music and even the clothing felt foreign to the youth in

Jalisco. As a result, new scripts and new videos were produced by and for youth in Jalisco. The

results of the pilot also provided additional feedback to edit the content and format of the

manuals. See the Figure below for the pilot results on alcohol, cigarette, and marijuana. use. A
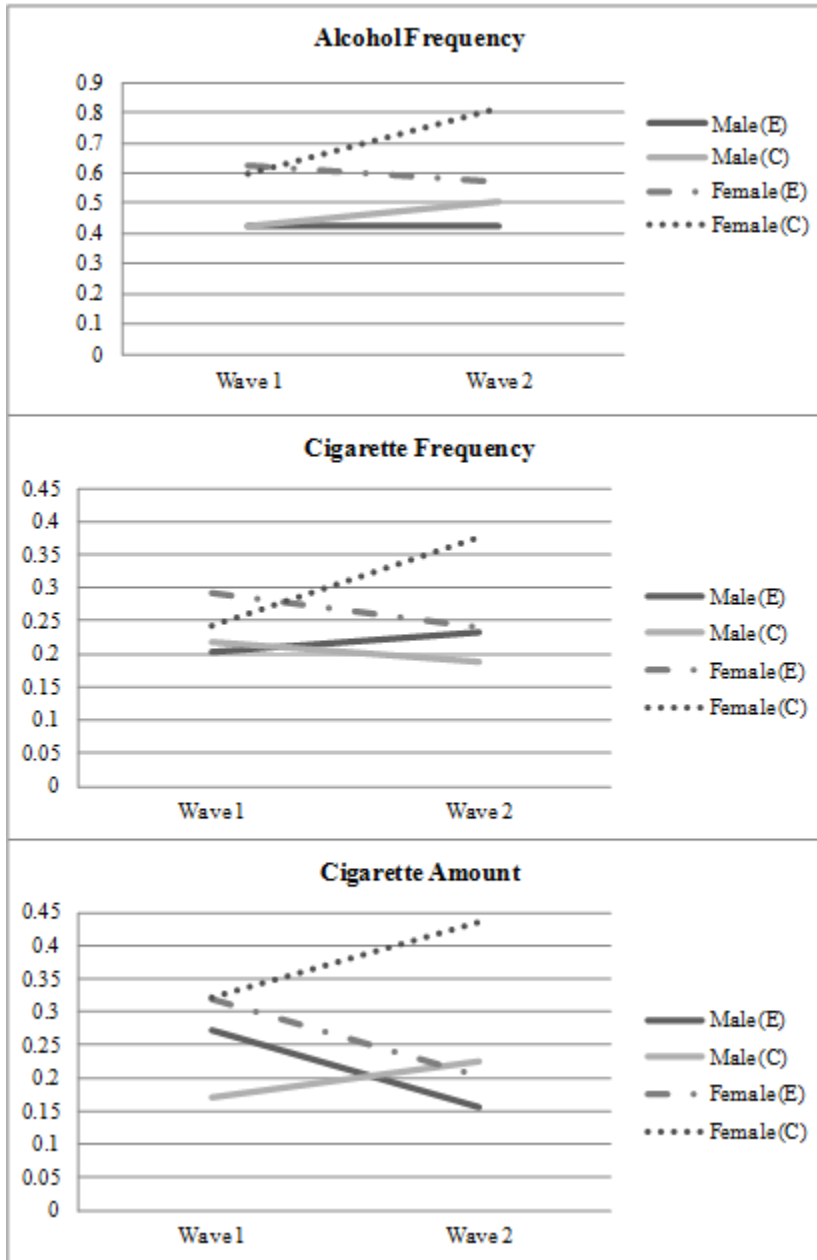
The results of the pilot were very promising and identified female students at a greater

risk. Females in the control group (not receiving the intervention) reported the greatest increase

in substance use between the pre and post-test. The pilot results illustrate the need for the

cyclical and continuous adaptation process. This case study highlights the need to conduct a

gender adaptation in addition to an ethnic or nation of origin adaptation. With the adapted

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manual and the new videos, the bi-national team of researchers is applying for funding to conduct an RCT in Mexico of the revised intervention now called "Mantente REAL."

Recommendations

Social work ethics clearly instruct social workers to provide culturally competent practice and to implement interventions with the best possible evidence of efficacy. Due to the vast diversity in the human family, these imperatives can be in conflict. This conflict highlights many of the questions that still linger in the discussion of the value of implementing social work interventions with fidelity versus adapting them to better achieve a cultural fit. It has been suggested that one way to rectify this tension is to adapt interventions in a systematic manner, based on scientifically validated methods. Despite the apparent clarity of this task, the adaptation process can be challenging. The theories of adaptation that have emerged in several different fields put forward similar processes of adaptation. These may require an extensive assessment of the etiology of social problems, an understanding of the deep theoretical structure of the original intervention, and rigorous evaluation that may be beyond the capacity of individual practitioners. To this end, more work needs to be done to build the capacities of social workers and social work agencies for utilizing and conducting rigorous research that would enable them to reliably adapt social work research theories and practices. In the absence of needed resources, social workers are encouraged to build relationships with research institution that can help them systematically assess and adapt interventions so that they can provide the most culturally competent services. When adaptations cannot be reliably implemented, efforts need to be made to identify interventions that have previously been adapted and tested with a given population, such as those in the SIRC model, and implement them with fidelity. With the ever expanding number of rigorously tested, culturally-specific and culturally-grounded interventions, it may

seem feasible at some point to have an EBP for every population in every context; however, the

dynamic nature of culture and the vast diversity among humans ensures that cultural adaptation

will continue to be a likely necessity in the future.

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