Scaling Out Evidence-Based Interventions Outside

the US Mainland: Social Justice or Trojan Horse?

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Abstract

Global health disparities continue to widen as professional standards for effectiveness of mental health services provision become more precise and difficult to achieve across varied economic and social contexts. Within the US, health disparities are evident in Latinx populations. Globally, the health disparities are also evident in Latin America as compared to the US and other economically affluent nations. The diversification of psychology in content and persons has led to a unique opportunity to build bridges that can help reduce disparities in- and outside of the US mainland. Collaborations can be of great use in addressing health disparities internationally but also are of critical importance in testing the ecological validity of existing interventions. It is imperative that researchers approach these exchanges as truly collaborative and power even, as researchers in all locations stand to learn and grow from the partnership, otherwise US-based researchers can unwittingly engage intellectual colonization and advance cultural imperialism. US-based researchers must be particularly thoughtful about disparities in both resources and consequences for success and failures in research contexts. We discuss specific failures, recoveries, and successes that may be useful to other researchers engaged, or seeking to engage in, international collaborations.

Key words: health disparities, intervention research, research methods

Public significance: The authors caution researchers to examine their methods carefully when transporting evidence-based interventions across international boundaries. There is a great need to address mental health treatments globally, yet US-based interventions may not be appropriate and their implementation could possibly do more harm than good.

Resumen

Las disparidades de salud globales continúan incrementado a medida que los estándares

proesionales para determinar la efectivdads de los servicios de salud mental se tornan más

precisos y difíciles de lograr en contextos económicos y sociales variados. Dentro de los Estados

Unidos, las disparidades de salud son evidentes en las poblaciones de Latinx. A nivel mundial,

las disparidades de salud también son evidentes en América Latina en comparación con los

Estados Unidos y otras naciones económicamente ricas. La diversificación de la psicología en

contenido y personas ha llevado a una oportunidad única para construir puentes que pueden

ayudar a reducir las disparidades dentro y fuera de los Estados Unidos continentales. Las

colaboraciones pueden ser de gran utilidad para abordar las disparidades de salud a nivel

internacional, pero también son de importancia crítica para evaluar la validez ecológica de las

intervenciones existentes. Es esencial que los investigadores aborden estos intercambios como

verdaderamente colaborativos y con igualdad de poder, ya que los investigadores en todas las

ubicaciones pueden aprender y crecer de la asociación, de lo contrario, los investigadores con

sede en EE. UU. pueden involuntariamente caer en la colonización intelectual y avanzar en el

imperialismo cultural. Los investigadores con base en los Estados Unidos deben ser

particularmente cuidadosos con las disparidades en los recursos y las consecuencias para el éxito

y los fracasos en los contextos de investigación. Discutimos fallas, recuperaciones y éxitos

específicos que pueden ser útiles para otros investigadores comprometidos o que buscan

participar en colaboraciones internacionales.

Palabras claves: disparidades de salud, investigación de intervención, métodos de

investigación

Valor público: Los autores piden cautela por parte de investigadores en el uso de métodos para trasladar los tratamientos basados en evidencia a diversos contextos internacionales. Hay una gran necseidad a nivel global de attender problemas de salud mental, sin embargo intervenciones desarrolladas en los EEUU puede que no sea apropaidas a otros contextos y su implementación pudiera causar más daño que beneficio.

Scaling Out Evidence-Based Interventions Outside

the US Mainland: Social Justice or Trojan Horse?

There is an inherent excitement in connecting with an international research partner especially when one partner has a tool (e.g., a treatment package) and the other has an unmet need (e.g., increasing rates of substance use). However, establishing these partnerships goes beyond the simplicity of matching a tool with a need. There are many assumptions and expectations that must be examined in the service of improving the quality of mental health care for Latinxs in the US and abroad. Collaborations can result in powerful vehicles to address health disparities or can, conversely, result in harm when assumptions are not uncovered or discovered and the efforts result in negative or no change.

Global health disparities continue to widen (WHO, 2011) as professional standards for effectiveness of mental health services provision become more precise and difficult to achieve across varied economic and social contexts (Suarez-Balcazar, Mirza, & Garcia-Ramirez, 2018; Subrahmanian & Swami, 2018). As for available treatments, many evidence-based interventions have been developed in the United States and tested mostly in the United States. Regardless of the wealth of resources for treatment within the US, health disparities continue to be evident in Latinx populations (Alcaraz et al., 2017; SAMHSA, 2015; Vega, Rodríguez, & Gruskin, 2009). In Latin America, health disparities are pronounced compared to the US and other economically affluent nations (WHO, 2011). The growth of the profession of psychology around the globe brings a unique opportunity to build bridges that can help reduce health disparities (a) within the US across ethnic groups and (b) internationally across countries with differing levels of resources.

The purpose of this manuscript is to share opportunities and challenges and potentially provide guidance to scientists conducting collaborative research across nations that may build the knowledge-base regarding the effectiveness of evidence-based interventions (EBIs). We recommend that researchers attend to (a) the selection of theory, constructs, and measures, as well as the acceptability and relevance of the intervention, (b) the suitability of research procedures, and (c) the accuracy of data analysis and interpretation. Collaborations in which power is uneven and one partner dominates can unwittingly result in intellectual colonization and the advancement of cultural imperialism. We discuss specific failures, recoveries, and successes that may be useful to other researchers engaged, or seeking to engage in, international collaborations.

Cultural Imperialism, Intellectual Colonization, and Cultural Appropriation

Cultural imperialism, intellectual colonization, and cultural appropriation all point to relationship dynamics wherein the will of one entity is imposed on another through forthright or subtle use of power. For the purposes of our paper, these dynamics occur between researchers in distinct geographical areas. Although a careful sociohistorical analysis is beyond the scope of this manuscript, we believe it is critical to consider these concepts in the process of scaling up interventions. The scale up studies are built with good intentions: to spread an evidence-based intervention for different settings or populations (i.e., scale out; Aarons et al., 2017). The argument is that an intervention that has been proven to improve the quality of life for one population could potentially have benefits for others who also need to improve certain outcomes (Aarons et al., 2017; Klinger, Boardman, & McMaster, 2013). But scaling up can also serve to transport values, beliefs, and practices considered to be superior by persons in one cultural context to another cultural context in which the values, beliefs, and practices are not the same.

Aarons et al. (2017) argue for the separation of the concepts of scale out and scale up. The authors define scale out as "the deliberate use of strategies to implement, test, improve, and sustain EBIs as they are delivered in *novel circumstances distinct from, but closely related to, previous implementations*" (p. 2, emphasis added), a concept that is different than scale up, defined as an EBI designed for one setting expanded to reach a greater number of people in the same target audience. If psychologists are to scale out, then it would be critical to stating the assumptions of theories and treatments and test whether the (a) core elements of the interventions are the same across the different populations, (b) underlying mechanisms of actions are the same, and (c) organizational or system support where the intervention is supportive of the intervention being delivered (Aarons et al., 2017). As such, and if we consider that a number of EBIs being implemented for Latinx populations have been originally developed for other populations, we propose that these EBIs are being scaled out and need thoughtful and deliberate tests of their assumptions, mechanisms of actions, and supporting systems. In that process, we argue that three constructs are particularly important to our discussion: cultural imperialism, intellectual colonization, and cultural appropriation.

Cultural imperialism is not easily defined for the inherent difficulty in defining both culture and imperialism (Tomlinson, 2002). The definition is further complicated by the consideration that the term shifts meanings depending on context. For the purposes of this manuscript, we center the definition in the context of scaling out EBIs. We use a broad definition of "culture as the *context* within which people give *meanings* to their actions and experiences, and make sense of their lives." (Tomlinson, 2002, p. 7), and of cultural imperialism as "a form of domination [that] exists in the modern world, not just in the political and economic spheres but also cover those practices by which collectivities make sense of their lives" (Tomlinson, 2002).

Cultural imperialism can occur when theories, methods of research, interventions and intervention strategies, data analyses and interpretations, and dissemination efforts are used from a dominant culture and applied in other contexts. There has been vocal criticism from two prominent authors in mental health. In *Crazy like us: The globalization of the American psyche*, Ethan Watters (2010) writes "Our golden arches do not represent our most troubling impact on other cultures: rather, it is how we are flattening the landscape of the human psyche itself. We are engaged in the gran project of Americanizing the world's understanding of the human mind". Watters documents how culturally specific mental illnesses are disappearing and are replaced by increasing rates, globally, of American-born illnesses such as post-traumatic stress disorder and restrictive eating disorders. Similarly, Burton (2015), a British psychiatrist, notes that rates of mental illness have skyrocketed in the United Kingdom. Burton acknowledges the reality of the human suffering and asks "But are they really all suffering from a mental disorder, that is, a medical illness, a biological disorder of the brain? And if not, are doctors, diagnoses, and drugs necessarily the best response to their problem?"

Watters (2010) claims that "indigenous forms of mental illness and healing are being bulldozed by disease categories and treatments made in the USA." Clear evidence exists through the ubiquitous use of the Diagnostic and Statistical Manual of Mental Disorders, a publication of the *American* Psychiatric Association and the rapid dissemination of evidence-based practice, a concept very much rooted in US-based clinical psychology. In this paper we argue that, while scaling up or scaling out evidence-based interventions from one country to another could be based on the assumption that it could benefit others, scaling out without a thoughtful process in place can also have negative consequences to others (Aarons et al., 2017).

Intellectual colonization or intellectual imperialism is the "domination by one people by another in their world of thinking" (Alatas, 2000, p. 24). Domination is an enactment of power and colonization points to a group-level dynamic rather than an individual-level one (Horvath, 1972). In intervention research, the massive economic inequities seen globally play out in a scholarly arena. By virtue of economic and social advantages, the US has the corner market on research production, providing a dominant body of scholarship that has the potential to shape world views about the proper conduct of research, from theory, to methods, to data analysis and interpretation.

Cultural appropriation is a concept that has come into popular media recently as people debate the merits of using symbols from one cultural group (e.g., a Native headdress) for the purposes of entertainment by another (e.g., trick-or-treaters looking for a costume). In scholarship, cultural appropriation is "defined broadly as the use of a culture's symbols, artifacts, genres, rituals, or technologies by members of another culture" (Rogers, 2006, p. 474). In intervention research cultural appropriation may occur when practices of one cultural group are packaged into a treatment protocol for the benefit of another. Recent mindfulness practices have been criticized on this front. In our work, cultural appropriation is a lesser concern relative to intellectual colonization and cultural imperialism because of the much higher likelihood of using interventions developed in the US abroad, compared to the probability of importing interventions developed outside the US for implementation here. However, we would be remiss not to mention this important concept. Rogers (2006) called the avoidance of cultural appropriation "inescapable when cultures come into contact, including virtual or representational contact." (p. 474).

We believe it is important for researchers to be aware of these concepts because we estimate that actions that advance cultural imperialism or intellectual colonization are likely the

result of good intentions gone awry. In our collective experience we have yet to meet highly

educated and committed professionals who wish to advance their agendas by force. We have,

however, met (and perhaps embodied) many enthusiastic life-long learners who see the

international arena as providing opportunities for meaningful exchange and mutual learning.

However, the lack of awareness about potential perils can seriously detract from this ultimate

goal. Roysircar (2004) provides an important perspective on awareness in the context of clinical

work that providers "do not distance themselves from their clients but rather perceive their

perspectives to be changed by encounters with those who are different from them." (p. 660). We

might add that researchers are changed by encounters from persons *and contexts* that are

different from them and understanding the broader social forces that may be at play will increase

the probability of an exchange that is more likely to be power-even.

The Silent Assumptions of a Research Enterprise

The research process begins well before any particular hypothesis is posed when theories

are developed to understand human behavior. Testing EBIs within and across national borders

involves a careful examination of the intervention selected as well as the research methods

utilized. Any intervention selected should have a theory, constructs believed to be the causal

agents of change, and procedures or methods for delivery (Ford & Urban, 1998). Theories

provide guidance on specific constructs and relationships between constructs. For interventions

specifically, theories specify the mechanisms of change associated with improved outcomes. It is

assumed that theories (and therefore interventions) are proven when they are applicable across

groups and situations, thus generalizable or universal. Indeed, within the field of psychology the

predominant approach to research has been towards generalizability (Hall, Yip, & Zárate, 2016),

wherein human behavior is universal and research seeks to uncover universal truths. The

generalizability approach tends to yield research in which group differences are largely ignored or treated as nuisance information (Hall et al., 2016).

A major pitfall of the generalizability approach is that it beckons researchers to test the universality of theories. For example, social interaction learning theory (Patterson, 2016) posits that five core parenting practices are responsible for externalizing child behavior outcomes. Within the theory, context exerts its influence on child behavior primarily through parents (mediation model). Practitioners intervening using approaches developed from social interaction learning theory will specifically target parents or direct caregivers and specifically aim to change parental positive involvement, skills building, problem solving, monitoring, and effective discipline. Researchers will measure each of those constructs following specific operational definitions for each of the parenting practices as well as the child outcomes. From the outset, researchers must ask themselves: Do the constructs apply to the population under study? If so, are operational definitions relevant to the cultural context? And are the relationships between constructs relevant to the context?

Interventions also come with unstated underlying assumptions that could be made visible and examined. For example, the training of interventionists (including mode, frequency and dose), the delivery mode (e.g., face to face or online), and fidelity monitoring and support for interventionists and of participants are rarely empirically tested (Baer et al., 2007). Interventions require a physical space. Testing these interventions requires the selection and application of measures, data entry and management, and data analysis and interpretation. Once tested, the findings are presented; the context for the presentation (e.g., oral, written; scholarly, popular) and the responsibility for disseminating findings must be clarified. Because of all the aforementioned

assumptions, the selection – and implementation - of evidence-based interventions must be approached with the utmost care.

The invisible can be made visible by shifting processes. Two ways in which research has shifted are (a) engaging in cultural adaptations of EBIs and (b) using community-based participatory research methods in all aspects of the research enterprise.

Within the US there has been significant advancement in the literature on the cultural adaptation of evidence-based interventions. Cultural adaptations are the "the systematic modification of an evidence-based treatment (EBT) or intervention protocol to consider language, culture, and context in such a way that it is compatible with the client's cultural patterns, meanings, and values. (Bernal, Jimenez-Chafey, & Domenech Rodríguez, 2009, p. 362). Advances are both theoretical (e.g., Domenech Rodríguez & Bernal, 2012) and applied (e.g., Hall, Ibaraki, Huang, Marti, & Stice, 2016; Smith & Trimble, 2016). There are also many advances in the cultural adaptation and application of EBIs internationally (Hodge & Turner, 2016; Saraceno et al., 2007; Singla et al., 2017). These treatments hold promise for reducing health disparities but must be deployed carefully in collaboration with local professionals with expertise in mental health needs, research methods, and interventions. Indeed, after much focus on the brain and much research, attention has solidly turned to social determinants of health and major funding agencies in the US are calling for the consistent use of community based-participatory research in reducing health disparities (CBPR; Harris et al., 2018; Institute of Medicine, 2012; Lucero et al., 2018). CBPR requires collaborations between scientists and community stakeholders and/or agencies _as equal partners_. Formal methods have emerged for examining engagement across stakeholders (Goodman & Thompson, 2017; Goodman et al., 2017). Our collective experience has taught us that it is feasible to conduct a careful examination

of the fit of an existing EBI with a local context, make needed adaptations to the intervention as well as the research procedures and conduct a careful examination of effectiveness (e.g., Amador Buenabad et al., under review).

Below, we describe the cultural and national contexts of our work and how we have approached the adaptation and assessment of fit of an evidence-based parent intervention to these Latinx settings. Within each we highlight challenges and opportunities within the setting.

<p style="text-align:center">Mental Health Disparities Research</p>

Mexico

Previous research has found that Latinxs living in marginalized urban areas in Mexico are exposed to high rates of poverty, accessibility of substances, mental and physical health disorders, malnutrition, and limited medical and psychological services, which negatively impact their quality of life and global functioning (Reyes-Morales et al., 2009). Moreover, Latinxs in Mexico may experience discrimination due to their mental health status. It is estimated that over one third of Mexicans (39.2%) with a mental illness reported experiencing significant marginalization related to their mental health (WHO, 2011). These rates are higher than those of any chronic physical condition. This is further exacerbated by the limited availability of mental health providers in Mexico. Heinze, Chapa, and Carmona-Huerta (2016), reported that the number of psychiatrists is well below the WHO recommended levels necessary to address national mental health problems. Moreover, 61.3% of psychiatrists are located in three areas: Mexico City, Jalisco, and Nuevo León, creating structural barriers to access services for many of Mexico's citizens. This is of concern because many Latinx youth in Mexico may develop mental health difficulties due to coming in contact with adversity and may lack available services, which could negatively impact academic persistence and entry into the workforce (Benjet et al., 2012).

In Mexico, service utilization rates are low. In a national survey of mental illness and services utilization, the prevalence of mental illness following ICD-10 guidelines was 28.6% for lifetime, 13.9% for past year, and 5.8% for past month (Medina-Mora et al., 2003). Men reported a higher lifetime prevalence (30.4%) compared to women (27.1%), but women reported higher prevalence in the last year (14.8%) than men (12.9%). In that same survey, only 1 in 10 persons who reported at least one mental illness sought any services. There was little access to specialized services provided by a psychiatrist, psychologist, mental health nurse, or social worker. Among respondents, specialized services were most commonly sought for panic disorder (17.1%), mania (12.7%), and major depression (11.9%). Similar to the United States, Latinxs in Mexico have low accessibility to substance use treatment. Borges and Colleagues (2009), findings indicate high rates of unmet need for substance use intervention services in several of Mexico's major urban centers, with only 11% of individuals identified as having a substance use disorder receiving intervention services. Substance use is an emerging problem in Mexico as rates among children have risen (Villatoro Velázquez et al., 2016), which may contribute to higher rates of substance use disorders in the future (King & Chassin, 2007). Mexican boys and indigenous youth appear to be especially vulnerable to substance initiation during childhood (i.e., 5th, 6th grade), suggesting an urgent need for early substance use prevention programs (Vazquez et al., under review). Despite the existence of effective substance use intervention services, policy in Mexico needs to address treatment disparities that are negatively impacting the health and future of their citizens.

What the literature may not reflect is information on how Mexico's context offers different opportunities and creates different challenges in conducting intervention research. Issues of measures and intervention materials presented a challenge initially for the need to

translate and culturally adapt. However, there was ample expertise in the research team and there were amazing opportunities with talented colleagues in Mexico whose work to culturally adapt the manual itself resulted in what could only be fairly described as a work of art. Whereas in the US, professors are fairly constrained in the definitions of productivity for the purposes of advancement, in Mexico there was more flexibility. A professor in graphic design became part of our research team and his contributions were in the form a beautiful manual and ancillary materials; he received institutional accolades for his work, which were helpful for his later promotion. Unexpectedly, public schools in Mexico were much more open to collaboration in intervention research than we have experienced in the US. Intervention groups were held in local schools and parents flocked to groups. In addition, our team of collaborators have traditionally experienced the human subjects protections review in Mexico as collegial and unobtrusive. Finally, the work was built on a strong empirical foundation. Mexico has excellent national level data for youth outcomes, including substance use and intentions to use and demographic, academic, familial, and social characteristics.

There are notable challenges. In international work, it is common for community sites to not have ethics boards that can review our work and this can present challenges with human subjects approval in the US. Additionally, we have painfully observed over the years that the work context of our colleagues is invariably different. Within our teams, US-based researchers are located at research institutions and are quite privileged with access to computers with statistical software needed to run analyses and programs to gather online data. US-based researchers have access to library materials that are within reach, at no personal cost. Many US-based researchers enjoy permanency in tenured positions. Some US-based researchers are fortunate to have grants and course releases associated with those grants. Mexico-based

researchers often do not experience these privileges. The ownership of data and authorship

decisions can be more complex. As an example, merit evaluations in Mexico are tied to

publication productivity, as is the case in the US for many, but these productivity evaluations

may also have implications for basic needs, such as housing assignments and continuation of

work contracts.

Furthermore, the access to resources can change rapidly with political elections.

Sometimes the need for programs to reflect political initiatives can present opportunities for

rapid funding. On the other hand, change in leadership can result in the immediate loss of funds

for projects either proposed or underway (Baumann, Domenech Rodríguez, Amador, Forgatch,

& Parra-Cardona, 2014). In addition to funding, these time elements can present structural

barriers to carrying out research in a manner keeping with ideal standards (e.g., having a great

measure to capture constructs before intervening). Here too we have faced ethical challenges:

move forward even though the stage is not ideally set and risk engaging in intellectual

colonization or cultural imperialism? Or miss an opportunity to examine the impact of an

intervention that the team feels fairly confident would result in benefits to the local community?

Is caution in the research enterprise just another privilege of US-based researchers? (Baumann,

Domenech Rodríguez, & Parra-Cardona, 2011).

A notable strength in the Mexican context is the pool of very talented researchers and

scholars. It is our observation that the expectations for the completion of a doctoral degree in

Mexico are quite stringent and research projects are larger and more complex than might be

typical in the US. We also note that there is greater creativity in problem solving especially

around issues having to do with resources. Finally, our experience is that in Mexico, scholars are

more connected to a broad international community and, as such, attend to a much broader base

of knowledge and methods that enriches research. In a recent exchange, a subset of the authors

was frustrated with dissemination roadblocks, and our Mexico colleague (fourth author) quickly

identified sources of funding tied to movements propelled by global organizations like WHO and

the Pan American Health Organization.

Puerto Rico

The Puerto Rico Mental Health and Anti-Addiction Services Administration

([MHAASA], 2016) reported that prevalence of mental health disorders (i.e., DSM-IV criteria)

among Puerto Ricans (i.e., 18-64 years of age) was 18.7% of the population, with anxiety (e.g.,

generalized anxiety disorder, social phobia) and mood (e.g., major depressive disorder, bipolar

disorders) being the most commonly diagnosed. Of those Puerto Ricans, 7.3% met criteria for a

serious mental illness that required treatment. Yet, 36.1% of individuals identified as being

seriously mentally ill did not receiving mental health services. Puerto Rican men were especially

at risk for mental health service disparities, with 73.6 % not receiving services relative 62.5% for

women. Even more alarming, the percent of suicides reported in 2017 were overwhelmingly

completed by men (85.5%; Roig Fuertes, 2018). This may be related to culturally prescribed

gender roles that may lead men to feel "weak" for seeking mental health services. Providers may

need to be particularly aware of these gender disparities and address treatment acceptability,

engagement, and adherence especially among Puerto Rican men.

Puerto Ricans with serious mental illness cited several perceptual and practical barriers to

mental health care such as believing problems would improve on their own (63.0%), wanting to

handle problems on their own (61.2%), time commitment or inconvenience (55.7%), treatment

would not be effective (42.2%), and concerns regarding the cost (40.5%). These barriers provide

a context for the social and cultural factors that may impact mental health services on the island.

Among these are cultural beliefs that problems are best handled "at home" and the current

economic crisis that has deeply affected Puerto Ricans living on the island. Increasingly,

professionals are opting to migrate to the mainland US in search of better opportunities, salaries,

and quality of life. On the other hand, in Puerto Rico, health insurance plans have increased their

costs and reduced their benefits, further limiting access to quality mental health services for the

population. Of the general population, 11.5% percent of Puerto Ricans were diagnosed with a

substance use disorder, with 15.5% having a co-occurring mental health disorder. Mirroring the

United States and Mexico, Puerto Rico experiences significant disparities among its citizens with

substance use disorder, with 69.8% alcohol dependence and 56.4% drug dependence going

untreated.

According the World Health Organization (2012), Puerto Rico invests a significantly

greater proportion of its health services budget on medical services (i.e., 90%) relative to mental

health (i.e., 10%). Given limited investment in mental health services, many Puerto Ricans may

have to seek services for mental health problems from general physicians that may lack the

training necessary to effectively address psychopathology (Alegría et al.,1991). Evidence-based

interventions may be a particularly powerful resource in the context of low resources. And,

further investment in mental health services may be needed to address significant rates of unmet

need by increasing access to professionals trained to address mental health difficulties among

Puerto Ricans.

The nature of the relationship between Puerto Rico and the US creates unique challenges

and opportunities in a research context and in life in general. The media coverage following

Hurricane María provided clear examples. On September 20, 2017, Hurricane María hit Puerto

Rico leading to a level of destruction that had not been experienced on the island for generations.

News coverage revealed significantly delayed aid to the island on the part of the US government,

a minimization of damages compared with similar disasters (e.g., Hurricane Katrina), and a very

slow period of recovery marked by increases in the occurrence of suicides (Figueroa Cancel,

2018; Roig Fuertes, 2018). On August 14, 2018, nearly one year after the hurricane's

devastation, the local newspaper, Primera Hora, reported that "AEE dice que ya todos en Puerto

Rico tienen luz" [AEE says that now everyone in Puerto Rico has electricity; Agencia EFE,

2018]. Puerto Ricans on the island did not receive the same disaster aid that bona fide states have

received in the past during natural disasters. Indeed, the invalidation was as basic as

acknowledging the death toll (Kishore et al., 2018). The result of this response was indignation

and uncertainty among Puerto Ricans and is understood to be responsible for a massive exodus

of Puerto Ricans that decreased the island population by 6% (Criollo Oquero, 2018). Regardless

of these challenges, communities mobilized and began rebuilding with or without help. An

example of community mobilization was reported by the periodical *El Nuevo Día*. The

community in San Sebastián was mobilized by the city mayor to restore electrical power. By

December 28, 2017, the "Pepino Power Authority," a homegrown brigade named after the

town's nickname, had restored power to more than 2,000 households (Ayala Gordián, 2017).

In Puerto Rico, all federal (US) regulations apply, thus human subjects review is

simplified by the parallel nature of the process. However, language issues in both measurement

and intervention materials are present as they have been in the US Latinx and Mexico contexts.

The work in one context does facilitate the work in another. For example, our research team

worked to translate parenting measures that have been used in our work across the three Latinx

contexts with minor language modifications. Research procedures have also been translated and

adapted for use across contexts (e.g., Family Interaction Tasks). Some of our findings have

revealed some issues with the measurement of concepts (e.g., parenting; Domenech Rodríguez, Donovick, & Crowley, 2009) and constructs (e.g., discipline; Domenech Rodríguez et al., 2013) that need to be further explored. There is a particularly noticeable dearth of research in Puerto Rico on Puerto Rican families and parenting providing both little foundation for ongoing research but also ample opportunity for discovery. The experience of colleagues sits somewhere between the US and the Mexico models where there are some resources but not quite as plentiful as in the US, there are structures of support but they can be fleeting. At present, Puerto Rico is facing a tremendous fiscal deficit that resulted in US intervention and that has had a major impact on the University of Puerto Rico, a leading academic institution on the island. The current fiscal plan includes the reduction or elimination of academic programs, merger of campuses, administrative restructuring, and budget cuts in excess of $160 million (University of Puerto Rico, 2018). This increases the challenges to researchers, faculty, and students in engaging local research.

Much like in Mexico, the dearth of resources in Puerto Rico leads to inventive and collaborative approaches to challenges. When a small subset of our larger team was studying parenting practices in Puerto Rican families, we hit a recruitment slowdown. Research team members quickly reached out through their networks and connected with colleagues across institutions that led to the successful conclusion of our work. The level of collaboration for completion of projects was unusual for the US-based researcher who observed Puerto Rico-based researchers helping each other collect and code on a volunteer basis. This reciprocity led to strong productivity in a context of low resources. Finally, there is a habit of critical examination among Puerto Rico-based scholars in our research team and the broader academic circles that is based partly on the colonial relationship that the US and Puerto Rico have. This is a strength in

the process of scaling out as there is already a habit for unmasking unstated assumptions and examining them carefully before proceeding.

United States

Many Latinx families living in the US experience disproportionately higher rates of poverty as compared to Whites American families (Center for Disease Control ([CDC], 2014). Thus, they are more likely to come in contact with factors known to negatively impact mental health such as community violence (Fowler et al., 2009), residential instability (Buu et al., 2009), and high availability of substances (Crum, Lillie-Blanton, & Anthony, 1996). Moreover, Latinxs living in the United States may be exposed to other factors detrimental to mental health such as discrimination (D'Anna, Ponce, & Siegel, 2010) and acculturation stress (Zeiders, Umaña-Taylor, Updegraff, Jahromi, & White, 2016). It is possible that exposure to poverty, discrimination, and acculturation stress within the United States contributes to the greater prevalence of psychopathology observed among American Latinxs relative to their immigrant counterparts (Alegría et al., 2007; Ault-Brutus & Alegría, 2016). Given the increased exposure to factors associated with mental health difficulties, Latinxs living in the United States may be especially in need of accessible and effective mental health services.

Despite greater vulnerability among Latinxs in the United States, the Substance Abuse and Mental Health Services Administration ([SAMHSA]; 2015) reports that Latinx adults with a mental illness have lower rates of mental health service utilization (27.3%) as compared to Blacks (29.8%) and Whites (46.3%). Latinxs with unmet mental health need reported that they did not seek services due to cost and lack of insurance (52.6%), fear of prejudice and discrimination (33.1%), structural barriers (33.2%), low perceived need (21.3%), and not thinking service would be helpful (6.6%). Furthermore, Latinxs living below the poverty line

report lower rates of mental health service use as compared to Whites and Blacks with similar economic resources. Similar trends have been found in Latinxs' access to care for substance use, as financial barriers (i.e., unemployment, housing instability) limit their ability to engage in intervention programs to address substance abuse (Saloner & Cook, 2013).

Latinxs in the US also have the lowest likelihood of having insurance of any ethnic group in the US (USDHHS, 2017). This is further compounded by perceived stigma (Young & Rabiner, 2015), limited transportation (Aguilar-Gaxiola et al., 2002), lack of knowledge on how to access services (Scheppers et al., 2006), distrust of the mental health system, and fear of discrimination due to ethnicity/language (D'Anna et al., 2010), which could deter Latinxs from seeking mental health services. Thus, despite the focus on the development and implementation of effective evidence-based mental health services in the United States (Connor-Smith & Weisz, 2003), including the development of the field of implementation science (e.g., Brownson, Colditz, & Proctor, 2017) and a journal for the field (i.e., Implementation Science Journal), vulnerable Latinx populations may have greater difficulties accessing these services as compared to other racial/ethnic groups.

Some specific issues that have arisen in our work with US Latinxs are tied to structural limitations. For example, conducting research in school settings, where Latinx families may be most comfortable, can be challenging for the complexities inherent in gaining support from overworked teachers and administrators in schools. We have had more success partnering with community agencies. Sometimes these partnerships are strong and sometimes they can quickly and unexpectedly shift when staff, administrators, or policies change. These complexities are amplified when doing research, for example, such as when researchers have to apply for separate Institutional Review Board approvals at their universities and also within the school district. In

addition, Latinxs in the US are a heterogeneous group and this creates complexities for researchers doing intervention research. For example, decisions have to be made about inclusion and exclusion criteria based on language and national origin. When working with Spanish-speakers, we have faced the same issues of limited validated measures and intervention resources as when we do work internationally and we are in good company (Spilka & Dobson, 2015). The applicability of theories, constructs, and interventions is also relevant for intervention researchers working with US Latinxs. By way of example, the first author led a trial of a parenting intervention in a rural Western community. After extensive cultural adaptation work and careful consideration of measures (Domenech Rodríguez, Baumann, & Schwartz, 2011), the team retained time out as a discipline strategy. During one of the intervention groups, when covering discipline strategies, a father angrily announced "Time Out is an American thing and I didn't come here to learn how to be an American parent. I am a proud Mexican!" It was an excellent point and led to a rich discussion within the research team. Important to note in this discussion is that we have addressed the importance of addressing culture and context and of being attuned to families' feelings about how researchers are respecting and honoring their culture (Mejia, Leijten, Lachman, & Parra-Cardona, 2017; Parra-Cardona et al., 2018).

International and Local Standards

The concerns about international collaborations transcend individual researchers' own constructions of what constitutes research and how to best carry it out. In conducting human subjects research in any setting, researchers must be aware of the ethical guidelines that provide guidance for carrying out the work in a manner that protects participants. A complexity of intervention research in an international context is that there are a multiplicity of ethical guidelines as well as laws that govern the activities of both clinicians and researchers. For

clinicians, there are important differences that could present challenges or opportunities in dissemination. For example, in the US and Puerto Rico, psychologists must be doctoral level clinicians. This is not the case in most of Latin America. Doctoral degrees in psychology outside of the US typically reflect expertise in research not clinical intervention skills.

The Office of Human Subjects Protections has compiled laws, regulations, and guidelines available for researchers conducting sociobehavioral research (USDHHS, 2017). Additionally, the Council for International Organizations of Medical Sciences (CIOMS, 2016) has published international guidelines for research that are thorough in the considerations provided. Finally, each setting has ethical guidelines specific for psychologists (American Psychological Association, 2017; Asociación Psicológica de Puerto Rico, 2007; Sociedad Mexicana de Psicología, 2007) as well as laws regulating their behavior. It is critically important that members of the team have access to those codes and seek proactively to abide by them. We have not experienced any ethical or legal standards in opposition or in conflict in our years conducting research across national borders.

The human protections review process is an opportunity to learn actively about the local context (Domenech Rodríguez, Corralejo, Vouvalis, & Mirly, 2017). Adherence to standards of human protections across countries can be time consuming but critically important. A recent case borrowed form medicine demonstrates the potential abuses of power in carrying out research in international settings. A Southern Illinois University professor, William Hartford, collaborated with a private company, Relational Vaccines (also in Illinois) to develop a Herpes vaccine (Young, 2017). The two recruited 20 US-based participants on Facebook and transported them to St. Kitts to receive the trial vaccine there. By all accounts, the trial did not undergo IRB review in the US nor was reviewed in St. Kitts. Indeed, the Ministry of Health in St. Kitts reported they

had no knowledge of the study. In this case, there were no local collaborators and the two so-called researchers were exploiting a possible loophole that made it possible to eschew both IRB and FDA review. Their actions have probably made international collaborations for US-based researchers all the more difficult.

Forging Forward

The focus of this special issue is on methods and it may be puzzling to understand how this manuscript fits with a methods theme. For our research team, methodological considerations begin at the level of establishing a collaboration between partners: What is the purpose of the research? Who benefits and how? What are the best ways to engage each other so that all parties can have substantive contributions and meaningful opportunities for learning? The answers to these questions have methodological consequences on the outcomes chosen, the measures selected and the designs of the studies (Baumann et al., in print).

Although we framed the discussion of cultural imperialism and intellectual colonization as part of an important awareness for researchers to have as they work with international partners, similar concerns are true within the US when working with vulnerable populations. Much care needs to be taken to increase awareness of our positions of power from academic centers when working with communities that may not have the resources that are assumed necessary or fundamental in the implementation of EBIs.

Internationally, researchers have developed novel ways to be flexible. For example, Spilka and Dobson (2015) recently recommended using benchmarking to evaluate treatments used across international boundaries. Their approach was thoughtful and creative and flexiblized the stringent criteria that have created problems with transporting treatments. In benchmarking, outcomes data from clinical practice can be measured against that of research settings to arrive at

an estimation of impact. They recommend to first define problem, population, and treatment model (Step 1), then identify a gold standard comparison outcome study (Step 2), then deliver the treatment in novel settings using effectiveness guidelines (Step 3), and finally compare outcomes to determine effectiveness in the population/context (Step 4). This approach is commendable, yet may still impose Western psychological views on conceptualization and intervention on international partners. In a thoughtful critique, Cardemil (2015) recommend instead to generally increase the capacity of communities to: (a) identify context-specific experiences and expressions of distress, (b) develop and evaluate culturally relevant and efficacious treatments, and (c) utilize cost-effective and sustainable methods to disseminate and implement those treatments. We might add that engaging in the activities recommended by Cardemil (2015) can result in important knowledge and changes in US-based research.

International research is critical to science. Indeed, a "true psychology of the human experience requires increased inclusion of world populations in research of the ways in which (a) historically grounded sociocultural contexts enable distinct meaning systems that people construct, and (b) these systems simultaneously guide human formation of environments" (Dvorakova, 2016). Scaling out to places and spaces outside of the US mainland provides an opportunity to ensure the ecological validity of our psychological theories and interventions. However, we need to proceed deliberately and thoughtfully as to not "Americanize" efforts to implement and disseminate EBI abroad. One possible solution is to approach collaboration with international researchers on equal plains to reduce power differentials which contribute to cultural imperialism, intellectual colonization, and cultural appropriation.

US-based researchers must also be particularly thoughtful about disparities in both resources and consequences for success and failures in research contexts. International

implementation efforts may have limited resources relative to the US, with structures of support

that can be fleeting. Although engaging in international efforts to disseminate and implement

EBIs may be a unique opportunity to build bridges that can help reduce health disparities,

disengaged collaboration may contribute to deviations that result in the poor application of both

intervention and research methods to the detriment of participants, researchers, and

psychological science. Thus, adherence to standards of human protections across countries could

be critically important in promoting beneficence in our attempts to address international

treatment disparities through research and practice. Despite these challenges, there exist a wealth

of talent and commitment among professionals internationally that can be harnessed through

collaboration to reach our goal.

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