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Cultural Adaptation of Skills Training in Affective and Interpersonal Regulation Therapy for Spanish-speaking Caribbean Veterans at the VA Caribbean Healthcare System: A preliminary study of feasibility and acceptability in a Primary Care setting

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ABSTRACT

The U.S. Department of Veterans Affairs has endorsed the Skills Training in Affective and Interpersonal Regulation (STAIR) therapy as an effective intervention for reducing PTSD symptoms, enhancing self-regulation, and improving interpersonal efficacy. However, Spanish-speaking veterans at the VA Caribbean Healthcare System lacked access to STAIR manuals in their preferred language. This study addressed this gap by translating and culturally adapting the STAIR therapy participant manual using the Ecological Validity Model (EVM). The materials were then tested in a randomized intervention with six Caribbean Spanish-speaking male veterans, aged 23-62, diagnosed with PTSD who received mental health services at the Primary Care Mental Health Integration (PC-MHI) level of care. Nonparametric tests were used to evaluate symptom progression, and content analysis was conducted on semi-structured interviews. There were no statistically significant changes in PTSD, emotion regulation, or interpersonal problems within the groups. However, participants in the intervention group reported clinically significant changes regarding PTSD symptoms. Interviews with therapists and STAIR participants highlighted improvements in social engagement and interpersonal boundaries. The intervention was found to be feasible and acceptable at PC-MHI. The culturally adapted Spanish version of the STAIR manual proved to be effective, suggesting that STAIR may be a viable approach for reducing PTSD symptoms and improving interpersonal and self-regulation strategies among Spanish-speaking veterans in primary care settings. A randomized control trial is recommended to further explore its efficacy.

Keywords
Behavioral treatment; STAIR; cultural adaptation; emotion regulation; interpersonal functioning; post-traumatic stress disorder

RESUMEN

El Departamento de Asuntos de Veteranos de EE.UU. ha avalado la terapia de Entrenamiento de Destrezas en Afecto y Regulación Interpersonal (EDARI) como una intervención eficaz para reducir los síntomas de TEPT, mejorar la autorregulación y la eficacia interpersonal. Sin embargo, los veteranos hispanohablantes del Sistema de Salud de veteranos del Caribe no contaban con manuales en su idioma. Este estudio abordó esta carencia traduciendo y adaptando culturalmente el manual, utilizando el Modelo de Validez Ecológica (EVM). Posteriormente, se probaron los materiales en una intervención aleatorizada con seis veteranos hispanohablantes del Caribe, entre 23 y 62 años, diagnosticados con TEPT y que recibían servicios de salud mental en el nivel de Atención Primaria. Se utilizaron pruebas no paramétricas para evaluar la progresión de los síntomas y análisis de contenido para entrevistas semiestructuradas. No hubo cambios estadísticamente significativos en los grupos en cuanto a TEPT, regulación emocional o problemas interpersonales. Sin embargo, los participantes del grupo de intervención informaron de cambios clínicamente significativos en la sintomatología. Las entrevistas con terapeutas y participantes destacaron mejoras en la participación social y los límites interpersonales. La intervención se consideró viable y aceptable. La versión en español culturalmente adaptada del manual demostró ser efectiva, sugiriendo que EDARI podría ser una estrategia viable para reducir los síntomas de TEPT y mejorar las estrategias de regulación interpersonal y autorregulación entre los veteranos hispanohablantes en entornos de atención primaria. Se recomienda un ensayo controlado aleatorizado para explorar mejor su eficacia.

Palabras clave
Tratamiento conductual; adaptación cultural; regulación emocional; funcionamiento interpersonal; trastorno de estrés postraumático

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[2] ***Conflicts of Interest*:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Adaptación Cultural de la Terapia de Entrenamiento de Destrezas en Afecto y Regulación Interpersonal para Veteranos Hispanohablantes en el Sistema de Salud de Veteranos del Caribe: Un estudio preliminar sobre la viabilidad y aceptación en un entorno de Atención Primaria

Introduction

The Department of Veterans Affairs (VA) strives for patient-centered interventions, but not all therapies, like the Skills Training in Affective and Interpersonal Regulation (STAIR), are culturally tailored for the diverse veteran population. STAIR, a cognitive-behavioral therapy, addresses emotion regulation and social skills, crucial for those who experienced trauma (Cloitre et al., 2020). Beginning with skills training, STAIR addresses primary concerns of relationships and emotional disturbances. It has extensive evidence of its effectiveness in various clinical trials with continued results after nine months (Jackson et al., 2019; Cloitre et al., 2010; Cloitre et al., 2016; Trappler & Newville, 2007). It has also been tested through video teleconferencing (Weiss et al., 2018) and the STAIR Coach App (Brooks, 2022), as well as in primary care and in conjunction with Prolonged Exposure Therapy (Jain et al., 2020; Oprel et al., 2021). Despite this, STAIR has not been tested with Spanish-speaking persons or in the Caribbean with a veteran sample.

Latinos, a large and diverse group, predominantly share Spanish as their primary language, which is linguistically rich with variations in style and meaning (Novas, 1998). Given the intimate connection between language, culture, and emotional expression, it is crucial to culturally adapt psychological interventions for effective engagement with emotional experiences. Cultural adaptation involves adjusting therapies to align with the cultural processes of an ethnocultural group, incorporating values, beliefs, norms, worldview, and lifestyles. This process employs systematic inquiry with community and stakeholder participation to inform and evaluate the adaptation (Domenech-Rodriguez & Bernal, 2012).

Bernal's Ecological Validity Model (Bernal et al., 1995), widely employed for cultural adaptations, encompasses eight dimensions crucial in developing culturally and linguistically adapted psychosocial treatments for ethnic minority groups. These dimensions consider clinician, client, and treatment characteristics, as well as developmental, technical, and theoretical factors (Domenech-Rodriguez & Bernal, 2012). The model has demonstrated versatility in applications, including lifestyle obesity interventions for parents and children (O'Connor et al., 2020), low-intensity psychological interventions in humanitarian settings (Perera et al., 2020), depression-

related interventions among Chinese populations (Sit et al., 2020), among others. Remarkably, it has consistently produced exemplary results across diverse populations and interventions.

STAIR is grounded in the belief that emotion regulation and interpersonal challenges interfere with life functioning and trauma processing (Oprel et al., 2018). The initial phase of treatment addresses emotional regulation, while the latter focuses on enhancing interpersonal efficacy and addressing trauma-generated interpersonal schemas (Cloitre et al., 2016). Schnyder et al. (2015) found that less than 10% of Veterans utilize trauma psychotherapy services, potentially due to a lack of therapies meeting patient needs and engagement. In Puerto Rico, this may be more chronic, as a study with 3,568 participants in Primary Care Settings revealed that 80% of those with probable PTSD (n=509) had not received mental health treatment (Vera et al., 2012). Comparing PTSD prevalence estimates, systematic reviews indicate that Latinos have a prevalence of 27%–33%, whereas non-Latino white veterans have 9%–15% (Pittman, 2014). Also, Latino veterans with PTSD exhibit more reexperiencing symptoms, fear, guilt, and numbing (Hall-Clark et al., 2017).

Situated within a stepped care model, this study initiates the identification of PTSD symptoms as the first step, offering a cost-effective and language-preferred treatment for veterans. It targets the initial levels of PTSD treatment, actively monitoring and intervening at the Primary Care – Mental Health Integration (PC-MHI) level. The primary aim was to culturally adapt and translate STAIR Group Therapy materials for testing among participants diagnosed with PTSD in primary care. The secondary aim was to assess the preliminary efficacy, acceptability, and feasibility of STAIR's group intervention, addressing systemic injustices linked to language barriers.

Method

This pilot study focuses on culturally adapting STAIR therapy materials, comparing symptom progression in two groups, and evaluating therapy feasibility and acceptability at PC-MHI. Employing the stepped care model (Table 1) and Bernal's Ecological Validity Model (EVM, Table 2), this study outlines the contributions of the EVM to a culturally adapted version of STAIR for Spanish speakers.

Table 1

Stepped psychological care for PTSD

Steps	Focus of Intervention for PTSD (Kneebone, 2016)	Nature of Intervention
Step 4	Severe disorder with complex comorbidities, or people who have not responded to treatment steps on 1-3.	Highly specialized treatment, such as medication, high-intensity psychological interventions, combined treatments, crisis services, and inpatient care.
Step 3	Moderate or severe functional impairment.	EBT* for PTSD. Consideration of combined treatment, partial hospitalizations, and crisis services.
Step 2	Mild to moderate.	EBT for PTSD.
Step 1	Known and suspected presentation of common mental health disorders.	Identification, assessment, psychoeducation, active monitoring, referral for further assessment and interventions.

Note. * EBT-Evidence Based Therapy

Cultural Adaptation of the Manual

Bernal's Ecological Validity Model (EVM, Table 2) was used to produce a culturally adapted version of STAIR for Spanish speakers. The EVM consists of eight culturally sensitive elements that are important to strengthen the cultural relevance of interventions. These elements include language (whether it is appropriate and culturally syntonic); person (if the person is comfortable with the therapy relationship); metaphors (symbols and concepts included in the treatment manual that are common for the population); content (cultural relevance for Spanish-speaking persons); concepts (treatment concepts consonant with culture and context); goals (support of positive and adaptive cultural values); methods (cultural appropriateness of treatment methods); and context (consideration of contextual aspects, such as economic and social context). We used a multi-phase approach for the translation: translations (forward and backward), bilingual general clinicians' review, bilingual veterans' review, PTSD clinicians' review, and STAIR group participants' revision. This helped us address semantic and conceptual equivalence and the revision of the content, technical, and cultural appropriateness of the intervention for our study population. The aim was to use standard or neutral Spanish that Spanish-speaking populations could easily understand.

Table 2

Translation and cultural adaptation of the STAIR therapy materials in Spanish using Bernal's Ecological Validity Model (EVM)

Phases	Description	Study's action
Language	Culturally appropriate.	Translation of manual.
Persons	Role of ethnic/racial similarities and differences between client and therapist.	Utilization of Latino therapists to work with this specific population.
Metaphors	Symbols and concepts shared with the population.	Evaluation of manual to modify/include Latino sayings, metaphors, and examples Veterans can relate to.
Content	Cultural knowledge, values, costumes, and traditions.	Assess for the uniqueness of the group and promote cultural values.
Concepts	Treatment concepts consonant with culture and context.	Conceptualization of the problem within the theoretical model for cultural sensitivity.
Goals	Transmission of positive and adaptive cultural values.	Align treatment goals with client and therapist goals.
Methods	Development and/or cultural adaptation of treatment methods.	Incorporation of cultural knowledge into treatment procedures.
Context	Consideration of changing contexts in assessment during treatment or intervention.	Establish the link between PTSD, emotion dysregulation, and interpersonal problems to social processes.

Participants

Participants were recruited at the VA Caribbean Healthcare System using convenience sampling approaches. Eligible participants were mentally competent Puerto Rican Veterans, aged 21 or older, exhibiting PTSD symptoms and receiving treatment at the Primary Care level of care. Eligibility criteria required a T score of 50 or higher on the Inventory of Interpersonal Problems (IIP-32) and/or a score of 80 or more on the Difficulties in Emotion Regulation scale (DERS). Veterans with PTSD not in PC-MHI or with a cognitive impairment (Mini Mental State Examination (MMSE $\leq$ 23)) were ineligible.

Ethical Aspects

The study was approved by both the Institutional Review Board and Research & Development Committee of the VA Caribbean Healthcare System and the Institutional Review Board of the Albizu University. The study followed the Universal Declaration of Ethical Principles for Psychologists, the International Ethical Guidelines for Biomedical Research Involving Human Subjects, and the declarations of the ISP regarding ethical behavior. All participants underwent the consent process, and the study adhered to ethical guidelines governing human subject research. Authors have no conflicts of interest to report.

Procedures

After finishing the translation and cultural adaptation process of the manuals, symptomatology was measured at three critical points: baseline, session 8 (end of treatment), and one-month post-therapy. Participants were recruited, consented to, provided baseline documents, and randomized at baseline. Intervention group participants received a call to initiate group therapy, led by a VA clinical psychologist. Then, data collection occurred at the last therapy week and one month later, including a semi-structured interview (Table 3) to continue assessing for semantic and conceptual equivalence, acceptability and feasibility of the intervention with the STAIR group participants. Treatment as Usual (TAU) group participants were scheduled for data collection a week in advance. Our proposed methods alongside the characteristics of the participants allowed us to assess the representativeness of the target population and culture towards obtaining sampling equivalence.

Table 3

A look into the Qualitative Interview

Topics	Questions
Manual	• Can you show me the annotations you have made in your manual? • How often did you use the manual? • Did you find it difficult to understand or follow the content of the manual before or after a therapy session? • Were there incongruences from what was discussed in-session to what you were reading in the manual? • Were there any concepts/words that you had problems understanding from reading the manual? • Are there any recommendations on the writing format of the manual? • Are there any recommendations on the styling of the manual? • Any overall recommendations to the manual?

Therapy Content	• Were you able to understand how trauma impacts emotions and interpersonal relationships?
	• Did you experience any changes in your emotional experience after participating from STAIR?
	  ○ Were you able to identify and name your emotions?
	  ○ Can you explain what you learn about how emotions occur
	  ○ Can you name at least one body channel skill to manage emotions and how you use it?
	  ○ Can you name at least one thought channel skill to manage emotions and how you use it?
	  ○ Can you name at least one behavior channel skill to manage emotions and how you use it?
	• Did you experience any interpersonal changes after participating from STAIR?
	  ○ Could you identify your interpersonal patterns?
	  ○ Can you name at least one interpersonal skill and how you use it?

Therapeutic Influences	• What did you think about the therapist? • What did you think about doing this therapy in a group format rather than an individual format? • What did you think about offering and conducting this therapy in Primary Care? • What did you like and dislike about this therapy? • Any overall recommendations to this therapy?

Measures

Sociodemographic Data

A Data Collection form was used to address sociodemographic data. Questions addressed sex, age, military experiences, alcohol and substance use, PTSD medication prescription, and service connected disabilities.

Mini-Mental State Examination (MMSE)

It assesses five domains (orientation, memory, attention, calculation, language, and design copying) related to cognitive impairment. With a maximum score of 30, this instrument has moderate to high reliability, with acceptable test-retest reliability and internal consistency (Tombaugh & McIntyre, 1992). Bird et al. (1987) utilized it to assess severe cognitive impairment in individuals in Puerto Rico.

The Difficulties in Emotion Regulation scale (DERS)

This scale is a 36-item self-report questionnaire designed to evaluate various aspects of emotion dysregulation. The measure provides a total score and scores on six scales (nonacceptance, goals, impulse, awareness, strategies, and clarity) derived through factor analysis. While lacking official clinical cut-off points, higher scores indicate greater difficulties in emotion regulation. The DERS scales demonstrate good internal consistency, with coefficients exceeding 0.70 (Fowler et al., 2014). Additionally, the DERS exhibits consistent psychometric properties across individuals from various racial groups (Ritschel et al., 2015).

PTSD Checklist for DSM-5 (PCL-5)

It is a 20-item self-report measure assessing the DSM-5 symptoms for PTSD. It provides a total severity score along with score clusters. Clinical significance is indicated by cut-off scores of 31-33, suggesting probable PTSD. Colon (2018) studied it with a Puerto Rican sample, demonstrating good psychometric properties, α=0.94.

Inventory of Interpersonal Problems (IIP-32)

It is a self-report instrument designed to identify a person's primary interpersonal challenges. As noted by Akyunus & Gencoz (2016), the IIP-32 exhibits good internal consistency, test-retest reliability, and split-half reliability coefficients. The instrument assesses difficulties in six dimensions of interpersonal functioning, including domineering/controlling, vindictive/self-centered, cold/distant, socially inhibited, nonassertive, overly accommodating, self-sacrificing, and intrusive/needy. Scoring involves conversion to T scores, with values exceeding seventy indicating clinical significance overall and by individual dimensions.

Combat Exposure Scale (CES)

It is a 7-item self-report measure evaluating wartime stressors experienced by combatants. Each item is rated on a 5-point scale, and total scores range from 0 to 41, with weighting based on the severity of combat experience (0-8 light, 17-24 moderate, 25-32 moderate to heavy, 33-41 heavy). The scale has been translated and culturally adapted for Latino Veterans (CES-S), demonstrating an internal consistency of α=.84 (Rivera-Rivera et al., 2021).

Acceptability Intervention Measure (AIM)

It is a four-question instrument designed to assess the success of treatment implementation by measuring the acceptability of the intervention. Responses are recorded on a 5-point Likert scale, ranging from "Completely disagree" to "Completely agree." While specific cut-off scores are not established, higher scores on the scale indicate greater acceptability. The AIM has been translated and culturally adapted for Spanish-speaking populations, α=.98 (Pérez-Pedrogo et al., 2022).

Feasibility Intervention Measure (FIM)

It is a is a four-question instrument designed to evaluate implementation success by assessing the feasibility of the treatment, measuring the extent to which it can be used or conducted. Responses are recorded on a 5-point Likert scale, ranging from Completely disagree to Completely agree. While no specific cut-off scores are provided, higher scores

on the scale indicate greater feasibility. The FIM has been translated and culturally adapted for Spanish-speaking samples, α =.99 (Pérez-Pedrogo et al., 2022).

Other qualitative measures for feasibility and acceptability

A list of questions regarding STAIR Group therapy understandability, the relevance of materials, therapist efficacy, and overall group dynamics was asked for the qualitative interview.

Data Analysis

Friedman's ANOVA and descriptive statistics were applied to participants characteristics, primary outcomes (PCL-5, DERS, IIP-32) at 3 different time points (baseline, end-of-treatment and 1-month later), secondary outcomes CES-S and sociodemographic data, and treatment acceptability and feasibility (AIM, FIM) using SPSS, version 25. While content analysis was performed on the qualitative interview transcripts.

Results

The sample demographic characteristics are depicted in Table 4 by randomized group allocation. Initially, six participants were enrolled in the study, with one withdrawing post-baseline due to reexperiencing PTSD symptoms. Veterans had already been diagnosed with PTSD by a licensed mental health professional using a structured interview (CAPS-5) at the VA previous to this study. In the STAIR group (mean age: 46.6, SD=16.9), all three participants were male, Latino U.S. military Veterans. The Army was the predominant branch of service (33.3% active, 33.3% National Guard). Deployments included Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn (OND) (33.3% each), Persian Gulf War (33.3%), and Peace Operations (33.3%). All had service-connected disabilities (100%), with one participant currently on PTSD-related medication, reporting alcohol use in the past 30 days (33.3%). For the TAU group (mean age: 53.6, SD=6.12), all three participants were male, Latino U.S. military Veterans, with the Army as the primary branch (33.3% active, 66.6% Reserve). All had OIF, OEF, OND deployments (100%) and service-connected disabilities (100%). Two participants were currently on PTSD-related medication

(66.6%), and all reported alcohol use in the past 30 days (100%). Combat exposure, measured by CES-S, is depicted in Figure 1.

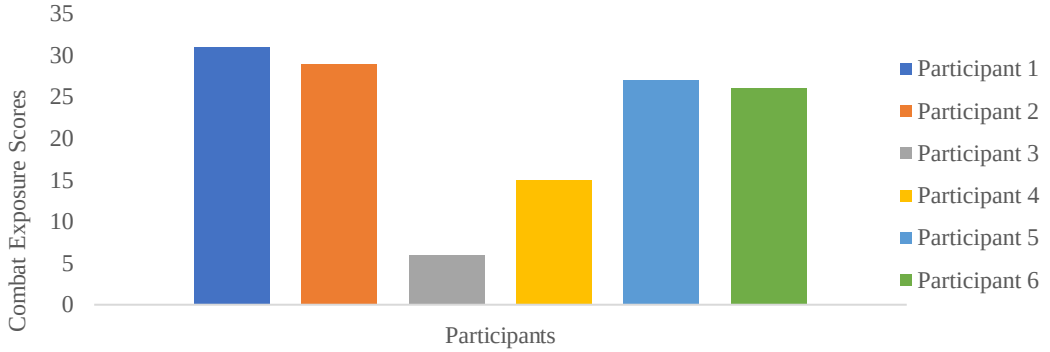
Table 4

Sociodemographic, military, and psychological characteristics of the sample (n=6)

Variables	STAIR Group N (%)	TAU Group N (%)
Age		
Mean ± SD	46.6 ± 16.9	53.6± 6.12
Median	55	58
Sex		
Male	3 (100%)	3 (100%)
Female	0	0
Conflict Served‡		
OIF/OEF/OND	1 (33.3%)	3 (100%)
Persian Gulf War	1 (33.3%)	0
Peace Operations	1 (33.3%)	0
Military Branch		
Army	1 (33.3%)	1 (33.3%)
Army Reserve	0	2 (66.6%)
Army National Guard	1 (33.3%)	0
Marines	1 (33.3%)	0
Service Connected		
Yes	3 (100%)	3 (100%)
No	0	0
Prescribed Medication for PTSD		
Yes	1 (33.3%)	2 (66.6%)
No	2 (66.6%)	1 (33.3%)
Alcohol Use in the last 30 days		
Yes	1 (33.3%)	3 (100%)
No	2 (66.6%)	0
Substance Use in the last 30 days		
Yes	0	0
No	3 (100%)	3 (100%)

Figure 1

Combat exposure levels



Note. This figure showcases the scores of the participants on the Spanish version of the Combat Exposure Scale (CES-S) at baseline. Total exposure to combat can be categorized as follows: 0-8 is light, 9-16 is light to moderate, 17-24 is moderate, 25-32 is moderate to heavy, and 33-41 is heavy combat exposure.

Translation and Cultural Adaptation of STAIR Therapy Materials

Using Bernal's Ecological Validity Model (EVM), the materials of STAIR therapy were translated and culturally adapted into Spanish for Veterans. Comprehensive modifications based on the EVM components are detailed in Table 5. Below, each component and its respective changes are described.

In aligning the STAIR manual goals with the cultural context of Latino values and traditions, participants were introduced to objectives such as enhancing emotional awareness, teaching coping skills for distressing feelings, identifying unhealthy relationship patterns, teaching skills to improve relationships, and increasing a sense of mastery and self-worth. The qualitative interviews confirmed a shared understanding between the STAIR materials' goals and participants' perspectives. Notably, a significant emphasis was placed on emotions, leading to the standardization of emotion representation across all manual tables. This standardized approach aims to boost emotional awareness literacy among participants.

Table 5
Changes to STAIR manual using EVM

Culturally Centering Elements	Components retained from the original manual	Cultural Adaptations to the Manual using EVM
Goals	• The original goals from STAIR: o Emotional awareness o Coping skills for distressing Feelings o Identify unhealthy relationship patterns o Skills to improve relationships o Increase sense of mastery and self-worth	• Greater emphasis on emotions. o Added emotions to the table of Emotions as Messengers and paired those emotions to the table of Opposite Action.
Concepts	• Manual concepts consonant with culture and context.	• Positive and negative emotions change due to insufficient information.
Methods	• The 90 min structured weekly sessions (welcome, agenda, summary of previous session, assignment discussion, introduction to new session). • The two components of STAIR: Emotion regulation and Interpersonal efficacy. • Provided adapted manuals to participants. • Participants were asked to complete assignments every session.	• Images in the manual were updated to reflect the content better. • An introduction was made to the table of Social Influences of our Emotional Experience to account for difficulties reported during the testing phase with participants.
Content	• Participants are encouraged throughout the manual to practice learned skills.	• Promoted importance of cultural values. • Used names more akin to Latino culture in the examples. • Used more neutral words when the literal versions could incite stigma.
Persons	• Materials should consider the audience it is intended to. • Facilitators should be credible, relatable, and likable.	• The manual was written with an informal style for perception reasons. • Manual included both masculine and feminine forms of writing to promote inclusivity. • The facilitator was bilingual and from the same culture as the participants.

Culturally Centering Elements	Components retained from the original manual	Cultural Adaptations to the Manual using EVM
		• Facilitator to demonstrate Puerto Rican values; participants described her as "humble" while creating a space for them to feel comfortable and share their experiences.
Metaphors	• The STAIR logo was preserved even when it does not have the same relatedness with the Spanish acronym translation.	• Changed one of the metaphors for not having a satisfactory translation to preserve the sense of it. • Added cultural sayings.
Language		• Forward and backward translations into Spanish/English, focus on content, not direct translations. • Five bilingual mental health providers and three veterans offered recommendations on grammar, writing style, translations, and more explicit instructions on a specific table.
Context	• Continuous emphasis on the effect a traumatic experience has on emotion regulation processes and interpersonal efficacy.	• In-person setting after Covid-19 restrictions at VACHS. • Referral to Nutrition services resulted from session three discussion.

EVM Dimension: Goals

In aligning the STAIR manual goals with the cultural context of Latino values and traditions, participants were introduced to objectives such as enhancing emotional awareness, teaching coping skills for distressing feelings, identifying unhealthy relationship patterns, teaching skills to improve relationships, and increasing a sense of mastery and self-worth. The qualitative interviews confirmed a shared understanding between the STAIR materials' goals and participants' perspectives. Notably, a significant emphasis was placed on emotions, leading to the standardization of emotion representation across all manual tables. This standardized approach aims to boost emotional awareness literacy among participants.

EVM Dimension: Concepts

During the manual adaptation, we retained concepts that resonated with the cultural context. The original STAIR materials referenced positive and negative emotions as theoretical constructs throughout the manual. However, it did not provide explanations about these constructs, such as which emotions fall into each category, why they occur, their significance, and effective management strategies. Recognizing that veterans might be encountering emotional awareness for the first time, and it has been well documented that veterans may exhibit restrictive emotionality (Spector-Mersel & Gilbar, 2021), it was deemed crucial to enhance clarity. Consequently, we chose to eliminate these categorizations and present emotions simply as emotions. This approach, inspired by Dialectical Behavioral Therapy, aligns with the inclusion of skills like Opposite Action in the original manual, aiming to facilitate a more straightforward and effective application of techniques.

EVM Dimension: Methods

We meticulously considered various factors to create a robust Spanish manual aligned with STAIR goals. This involved updating images for modernization while preserving the original style and addressing participant feedback. An introduction was added to the table on "Social Influences of our Emotional Experience" to enhance clarity, responding to concerns raised by participants during testing that were expressed during the qualitative interviews.

EVM Dimension: Content

The manual adaptation for the Latino context considered values like confianza (trust and intimacy in a relationship), respeto (respect; mutual and reciprocal deference), personalismo (personal rather than institutional relationship), and familismo (familial orientation). To prevent stigma, words were neutralized, e.g., changing "manipulative" to "controlled" in the List of Emotions. Names were culturally aligned, including Laura, Maria, and Angélica. The original emphasis on skill practice was retained throughout the manual.

EVM Dimension: Persons

The manual was informally written to enhance its approachability and relatability for participants. Inclusive language, incorporating both male and female forms, was adopted. The crucial role of a bilingual therapist, sharing cultural norms, was emphasized to promote effective participant engagement in group therapy. This approach seeks to make the manual feel personal and foster a strong sense of connection for participants.

EVM dimension: Metaphors

The manual's cultural adaptation focused on providing a cultural understanding of symbols and concepts to enhance engagement in group therapy. Despite the altered relatedness of the STAIR logo with the Spanish acronym, it was retained. The logo, resembling steps or a staircase, signifies the competency-building aspect of therapeutic intervention, offering participants a structured path for skill acquisition. In the Tools for Emotion Regulation section, the skill "Try it on for size" posed a translation challenge, resulting in "Trátalo por un rato." Though conveying the passing sense, the clothing metaphor was retained. To enrich the Self-Affirmation section, cultural sayings like "Más viejo es el viento y aún sopla," "Nunca es tarde si la dicha es buena," "Mientras hay vida hay esperanza," and "Hay que tomar al toro por los cuernos" were added.

EVM Dimension: Language

The dimension was thoroughly addressed through a multi-phase approach involving providers and veterans. In the first phase, the study team performed forward translation. The second phase involved review and comparison by two bilingual mental health providers, evaluating metaphors, content, concepts, and methods. The third phase included backward translation to English, ensuring fidelity to the original, by an external source. In the fourth phase, three bilingual veterans, who participated in the STAIR group, provided feedback, leading to recommendations on language and clarifications in the manual. The fifth phase involved another round of feedback from three bilingual mental health providers, addressing inclusive writing and grammatical errors. Finally, during the qualitative interviews, participants of the intervention shared their annotations regarding this dimension.

EVM Dimension: Context

The materials revealed several contextual themes. The consistent focus on how traumatic experiences affect emotion regulation and interpersonal efficacy remained intact. In session 3, addressing the body's role in enhancing mental health led to a participant being referred to nutrition services based on identified needs. Notably, this intervention marked the first in-person psychotherapy group at VACHS post-Covid-19 restrictions. Both therapists and participants emphasized the crucial role of the in-person setting, highlighting its impact on participation and heightened engagement with therapy and the materials during the qualitative interview.

Symptom Progression

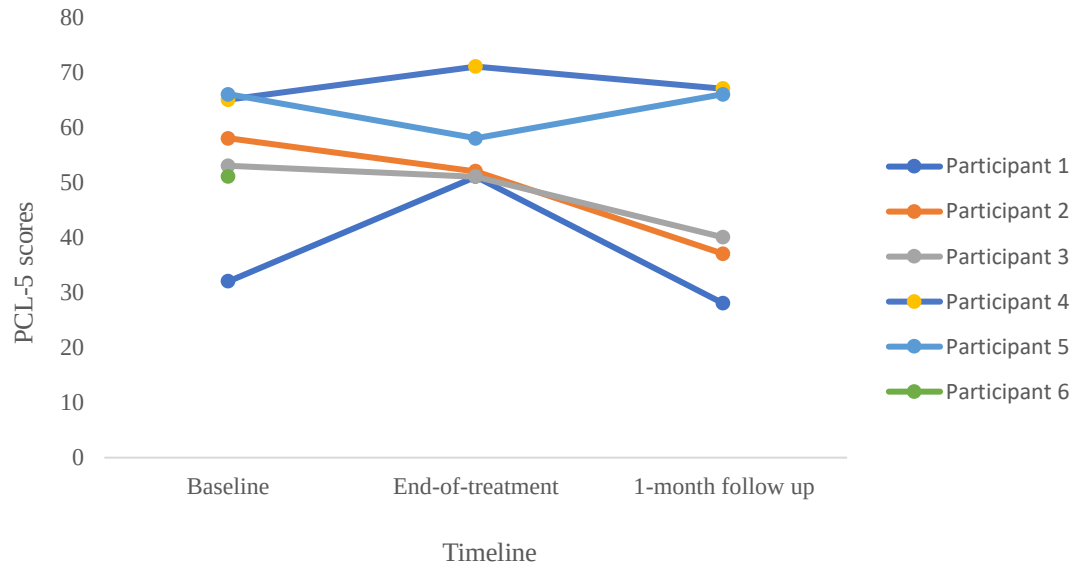
There were no significant changes through time for PTSD symptoms in both groups [X^2 (2) = 4.6, p = .09, X^2 (2) = 3.7, p = .15], Still, all three participants of the STAIR group showed a decrease in symptoms from baseline to the 1-month follow-up (participant 1: 32-51-28, participant 2: 58-52-37, participant 3: 53-51-40) (Figure 2). There were no significant changes through time for emotion regulation in both groups [X^2 (2) = .54, p = .76, X^2 (2) = 1.0, p = .60]. Similarly, there were no significant changes through time for interpersonal problems in both groups [X^2 (2) = .66, p = .71, X^2 (2) = 2.0, p = .36]. As there were no significant differences pair-wise differences by groups were not performed.

Acceptability and Feasibility

Three of the six randomized STAIR intervention participants completed post-measures for acceptability and feasibility (Figure 3). Attendance varied, with one participant (33.3%) attending all sessions and two participants (66.6%) attending at least five of the eight sessions. Overall results for the AIM and FIM are depicted in Figure 3. Regarding the AIM, participants Totally agreed (100%) that the intervention was attractive, gained their approval, and they liked the therapy. Furthermore, participants Totally agreed (66.6%) and Agreed (33.3%) that they were open to therapy. Concerning the FIM, participants Totally agreed (100%) that therapy was plausible, and they Totally agreed (66.6%) and Agreed (33.3%) that the therapy seemed possible, achievable, and was easy to use.

Figure 2

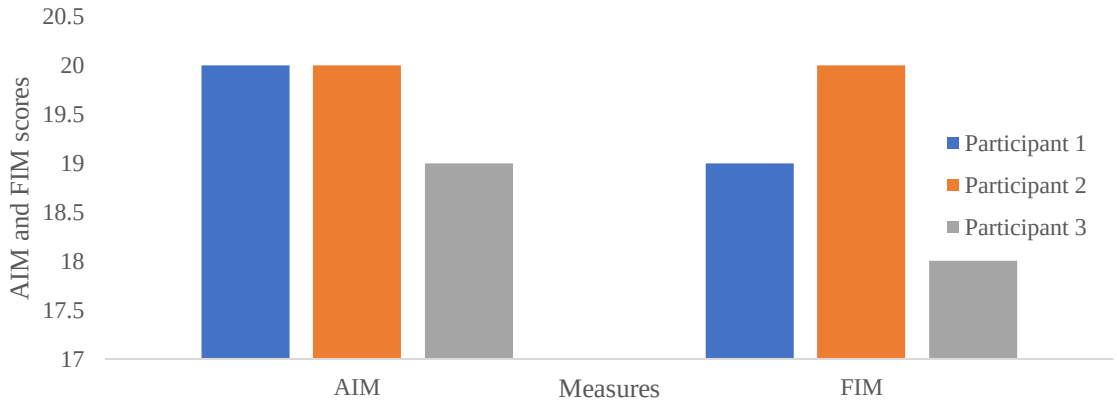
PCL-5 symptom progression



Note. This figure showcases the scores of the participants on the PTSD Checklist for DSM-5 (PCL-5) at three different data collection points.

Figure 3

AIM & FIM scores



Note. This figure showcases the scores of the participants on the Acceptability of Intervention Measure (AIM) and the Feasibility of Intervention Measure (FIM) at the end of treatment.

In addition to the AIM and FIM measures, participants underwent a semi-structured interview about the STAIR intervention. Key themes emerged, including "skills utilization" for both emotion regulation and interpersonal efficacy, "intervention modality" considering the in-person and group format, "therapist qualities" detailing the therapist's role in their connection to the intervention, and "manual recommendations" offering suggestions to enhance the culturally adapted materials. Reflecting on session 1,

where trauma and its effects were discussed, all three participants acknowledged understanding how trauma impacted their emotions and interpersonal relationships. Regarding emotion regulation, two participants reported comprehending emotions and their urges, while one expressed understanding it "more or less." All three participants highlighted learning about body and thought channel abilities, with one noting continued use of these skills for self-regulation with significant benefits. All three identified their unique interpersonal patterns. Participants reported improved interpersonal skills, including recognizing power dynamics, and becoming more assertive. One participant said: “it is difficult, but the technique makes it easier”. Another participant highlighted transformative changes in personal relationships, expressing increased happiness in interactions with their spouse and engaging in activities previously avoided. He said, “My wife is very happy with this therapy. I invited her to dinner the other day, which did not happen before. I can now go with her to the supermarket. We talk about the skills and practice together”.

Participants unanimously approved of the therapist, noting she instilled trust to facilitate participation. Regarding the group format, all three participants appreciated the opportunity to listen and learn from others. In terms of modality, they unanimously preferred the in-person format over virtual, emphasizing the difference in experience. Participants endorsed the primary care setting, considering it optimal and more comfortable, expressing satisfaction with not feeling like a special case. One participant suggested extending the intervention to VACHS Community-Based Outpatient Clinics (CBOCs) for veterans living far from the main VA hospital, while another recommended individual session as a complement to group treatment. In a semi-structured interview, the therapist delivering the group provided insights into the clinical setting and participants' engagement. She highlighted PC-MHI as an excellent environment for STAIR therapy, noting observed improvements in participants. The therapist discussed treatment adherence, growth areas, and skill generalization. Regarding consistency in completing assignments, she noted variability in manual usage and writing. Two participants demonstrated interpersonal growth, establishing healthier boundaries with family members, and increased social engagement.

Discussion

The goal of this pilot study was to produce Spanish version of STAIR and preliminary test it with veterans in primary care. Systematic reviews on culturally adapted

treatments studies have concluded that culturally adapted interventions have positive effects on patients' engagement in therapy, retention, and satisfaction (Healey et al., 2017). Findings from this preliminary study are relevant because they provide the provisions for the use of STAIR therapy participant manuals in Spanish while providing initial empirical data regarding the implementation feasibility and cultural acceptability of a widely used therapeutic intervention for PTSD. Another strength of this intervention is its brevity, and preliminary studies indicate that it is acceptable and effective in low-resource and primary care settings (Jain et al., 2020). A good portion of veterans with PTSD also suffer from emotion dysregulation and interpersonal problems; therefore, a brief intervention implemented in primary care settings is well suited for this population. Thus, transcending disorder-specific interventions (Jain et al., 2020).

Translation and Cultural Adaptation of STAIR Therapy Materials

Culturally adapting an intervention using the EVM framework ensures the adapted version maintains external validity and increases engagement with the new target group (O'Connor et al., 2020). This study systematically adapted the intervention to Spanish, addressing all EVM components—language, goals, concepts, methods, content, persons, metaphors, and context—without losing the core components of the original manual. To enhance the final version, experts were involved at various stages, aligning with recommendations for language examination. The veterans who participated in the testing phase also contributed as experts, providing valuable insights into the adaptation process.

Symptom Progression

In the PCL-5, a 5–10-point change signifies reliable change, while a 10–20-point change is clinically significant. Participants in the STAIR group experienced clinically significant changes (13-23 points). This aligns with findings from another study comparing STAIR with TAU in primary care (Jain et al., 2020) and with other Latino samples in English (Jackson, et al., 2019; Guidiño, et al., 2015). The DERS results showed mixed outcomes, with two STAIR participants experiencing decreases in emotion dysregulation, while one increased, possibly due to attendance issues. In the IIP-32, STAIR participants did not report high interpersonal difficulties, indicating that STAIR did not worsen these issues. In contrast, one TAU participant displayed increasing levels

of interpersonal difficulties. Overall, STAIR seemed effective in reducing PTSD symptoms and emotion dysregulation, while not exacerbating interpersonal problems.

Acceptability and Feasibility

The study aimed to assess the feasibility and acceptability of the STAIR intervention in a translated and adapted Spanish version. It is important to notice how the changes brought by COVID-19 pandemic to in-person services may have affected recruitment as this was the first group therapeutic intervention post-pandemic at VACHS. Three participants completed the STAIR intervention, and post-measures on acceptability and feasibility were obtained. The findings suggest that participants were able to understand the therapy concepts, improve emotion regulation, and the feasibility of conducting STAIR in a primary care setting, consistent with other studies exploring STAIR in various formats.

Implications of the Study

This study aimed to culturally adapt the STAIR therapy manual, assess symptom progression through a two-group comparison, and evaluate the feasibility and acceptability of the intervention in a primary care setting at VACHS. Despite STAIR's original design for sexual trauma, its effectiveness was observed in reducing PTSD symptoms among participants with military combat experiences. Notably, there were no dropouts in the STAIR group, highlighting the intervention's potential to align with patient goals and provide valuable strategies for trauma-related symptoms, emotion regulation, and interpersonal efficacy. This is particularly relevant with this population because when compared to non-Hispanic whites, Latinos rely more in primary care for mental health interventions (Jones et al., 2018). Also, the study's outcomes contribute to expanding STAIR's applicability across languages, populations, and settings, addressing social justice principles, and improving access for Spanish-speaking veterans in the Caribbean. The availability of the adapted manual holds promises for enhancing psychosocial well-being and reducing health care disparities through improving access among Spanish speaking individuals undergoing STAIR therapy after traumatic experiences.

Limitations and Future Research

This study made significant contributions by culturally adapting the STAIR therapy manual in Spanish, assessing its acceptability and feasibility in a PC-MHI setting, and observing a reduction in PTSD symptoms among participants. However, certain limitations need consideration. Even when small sample size could cause analytical and design inconveniences, small sample research is critically important because it usually occurs when studying serious health concerns and vulnerable and underrepresented populations (Etz & Arroyo, 2015). Furthermore, the proliferation of small sample studies has called for innovation in analyses that could provide reliable results despite sample size (Etz & Arroyo, 2015). The present study had a small sample size that limited the generalizability of findings while the short follow-up duration prevented the sustainability of treatment gains over time. Additionally, budget constraints focused on translating and adapting the participant's manual, potentially restricting broader study scope. Despite these limitations, the study provides valuable insights into the use of a Spanish manual and its acceptability and feasibility at PCMHI. Future studies with larger sample sizes and a control group are needed to offer a more definitive, well-powered test of the current promising findings. Investigating STAIR with patients with depression lacking trauma exposure and examining the benefits of bilingual therapists as interventionists are worthwhile future directions. Furthermore, considerations for sampling methods and randomization strategies, particularly their impact on chronicity when comparing groups, should be explored in future studies.

Conclusion

In summary, this study offers initial evidence supporting the application of STAIR therapy among a Latino veteran population preferring Spanish in a primary care setting at the VA. The participants' manual was effectively translated and culturally adapted for the sample. Preliminary findings in the STAIR group indicate a reduction in PTSD symptoms and the acquisition of emotion regulation and interpersonal skills. These results underscore the potential value of further research on STAIR with Spanish-speaking Latino veteran samples across various levels of psychological care. In conclusion, STAIR demonstrates promise in addressing PTSD among Latino veterans in primary care, and the culturally adapted manual appears to be a valuable tool for facilitating this treatment in Spanish.

References

Akyunus, M., & Gencoz, T. (2016). Psychometric properties of the inventory of interpersonal problems-circumplex scales short form: A reliability and validity study. *Dusunen Adam, 29*(1), 36-48. https://doi.org/10.5350/DAJPN2016290104

Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: issues for the cultural adaptation and development of psychosocial treatments with Hispanics. *Journal of Abnormal Child Psychology*, *23*(1), 67-82. https://doi.org/10.1007/BF01447045

Bird, H. R., Canino, G., Stipec, M. R., & Shrout, P. (1987). Use of the Mini-mental State Examination in a probability sample of a Hispanic population. *The Journal of Nervous and Mental Disease*, *175*(12), 731-737. https://doi.org/10.1097/00005053-198712000-00005

Cloitre, M., Jackson, C., & Schmidt, J. A. (2016). Case Reports: STAIR for strengthening social support and relationships among veterans with military sexual trauma and PTSD. *Military Medicine*, *181*(2), e183-e187. https://doi.org/10.7205/MILMED-D-15-00209

Cloitre, M., Cohen, L. R., Ortigo, K. M., Jackson, C., & Koenen, K. C. (2020). *Treating survivors of childhood abuse and interpersonal trauma, STAIR narrative therapy*. Guilford Publications.

Cloitre, M., Stovall-McClough, K. C., Nooner, K., Zorbas, P., Cherry, S., Jackson, C. L., Gan, W., & Petkova, E. (2010). Treatment for PTSD related to childhood abuse: a randomized controlled trial. *The American journal of psychiatry*, *167*(8), 915-924. https://doi.org/10.1176/appi.ajp.2010.09081247

Colón, P. (2018). *La relación entre experiencias traumáticas, síntomas por estrés posttraumático, depresión y cambios en religiosidad* [Doctoral Dissertation]. Carlos Albizu University.

Domenech Rodríguez, M., & Bernal, G. (2012). The gap between research and practice in a multicultural world. In G. Bernal & M. Domenech Rodríguez (Eds.). *Cultural adaptations: Tools for evidence-based practice with diverse populations (*pp. 265-87). American Psychological Association.

Etz, K. E., & Arroyo, J. A. (2015). Small sample research: Considerations beyond statistical power. *Prevention Science: The official Journal of the Society for Prevention Research*, *16*(7), 1033-1036. https://doi.org/10.1007/s11121-015-0585-4

Fowler, J. C., Charak, R., Elhai, J. D., Allen, J. G., Frueh, B. C., & Oldham, J. M. (2014). Construct validity and factor structure of the difficulties in emotion regulation scale

among adults with severe mental illness. *Journal of Psychiatric Research, 58*, 175-180. https://doi.org/10.1016/j.jpsychires.2014.07.029

Gudiño, O. G., Leonard, S., & Cloitre, M. (2016). STAIR-A for girls: A pilot study of a skills-based group for traumatized youth in an urban school setting. *Journal of Child & Adolescent Trauma, 9*(1), 67-79. https://doi.org/10.1007/s40653-015-0061-0

Hall-Clark, B. N., Kaczkurkin, A. N., Asnaani, A., Zhong, J., Peterson, A. L., Yarvis, J. S., Borah, E. V., Dondanville, K. A., Hembree, E. A., Litz, B. T., Mintz, J., Young-McCaughan, S., & Foa, E. B. (2017). Ethnoracial differences in PTSD symptoms and trauma-related cognitions in treatment-seeking active duty military personnel for PTSD. *Psychological Trauma: Theory, Research, Practice and Policy*, *9*(6), 741-745. https://doi.org/10.1037/tra0000242

Healey, P., Stager, M. L., Woodmass, K., Dettlaff, A. J., Vergara, A., Janke, R., & Wells, S. J. (2017). Cultural adaptations to augment health and mental health services: A systematic review. *BMC Health Services Research, 17*(1), 8. https://doi.org/10.1186/s12913-016-

Jackson, C., Weiss, B. J., & Cloitre, M. (2019). STAIR group treatment for veterans with PTSD: Efficacy and impact of gender on outcome. *Military Medicine*, *184*(1-2), e143–e147. https://doi.org/10.1093/milmed/usy164

Jain, S., Ortigo, K., Gimeno, J., Baldor, D. A., Weiss, B. J., & Cloitre, M. (2020). A randomized controlled trial of brief skills training in affective and interpersonal regulation (STAIR) for veterans in primary care. *Journal of Traumatic Stress*, *33*(4), 401-409. https://doi.org/10.1002/jts.22523

Jones, A. L., Cochran, S. D., Leibowitz, A., Wells, K. B., Kominski, G., & Mays, V. M. (2018). Racial, Ethnic, and Nativity Differences in Mental Health Visits to Primary Care and Specialty Mental Health Providers: Analysis of the Medical Expenditures Panel Survey, 2010-2015. *Healthcare (Basel, Switzerland)*, *6*(2), 29. https://doi.org/10.3390/healthcare6020029

Kneebone I. I. (2016). Stepped psychological care after stroke. *Disability and Rehabilitation*, *38*(18), 1836-1843. https://doi.org/10.3109/09638288.2015.1107764

Novas, H. (2008). *Everything you need to know about Latino history.* Penguin Group.

O'Connor, T. M., Perez, O., Beltran, A., Colón García, I., Arredondo, E., Parra Cardona, R., Cabrera, N., Thompson, D., Baranowski, T., & Morgan, P. J. (2020). Cultural adaptation of 'Healthy dads, healthy kids' for Hispanic families: Applying the ecological validity model. *The International Journal of Behavioral Nutrition and Physical Activity*, *17*(52), 1-18. https://doi.org/10.1186/s12966-020-00949-0

Oprel, D. A. C., Hoeboer, C. M., Schoorl, M., de Kleine, R. A., Cloitre, M., Wigard, I. G., van Minnen, A., & van der Does, W. (2021). Effect of Prolonged Exposure intensified Prolonged Exposure and STAIR+Prolonged Exposure in patients with PTSD related to childhood abuse: A randomized controlled trial. *European Journal of Psychotraumatology*, *12*(1), 1851511. https://doi.org/10.1080/20008198.2020.1851511

Oprel, D., Hoeboer, C. M., Schoorl, M., De Kleine, R. A., Wigard, I. G., Cloitre, M., Van Minnen, A., & Van der Does, W. (2018). Improving treatment for patients with childhood abuse related posttraumatic stress disorder (IMPACT study): Protocol for a multicenter randomized trial comparing prolonged exposure with intensified prolonged exposure and phase-based treatment. *BMC Psychiatry*, *18*(385), 1-10. https://doi.org/10.1186/s12888-018-1967-5

Perera, C., Salamanca-Sanabria, A., Caballero-Bernal, J., Feldman, L., Hansen, M., Bird, M., Hansen, P., Dinesen, C., Wiedemann, N., & Vallières, F. (2020). No implementation without cultural adaptation: a process for culturally adapting low-intensity psychological interventions in humanitarian settings. *Conflict and health*, *14*, 46. https://doi.org/10.1186/s13031-020-00290-0

Pérez-Pedrogo, C., Planas-García, B. Y., Rivera-Suazo, S., Ortega-Guzmán, J., & Albizu-García, C. E. (2022). Preliminary feasibility and acceptability of a cultural adaptation of Acceptance and Commitment therapy for Latinxs with HIV and drug use disorders in Puerto Rico. *Revista Puertorriqueña de Psicología*, *33*(2), 232–243. https://doi.org/10.55611/reps.3302.03

Pittman J. O. (2014). Latino Veterans with PTSD: A Systematic Review. *Behavioral Sciences*, *4*(3), 320-340. https://doi.org/10.3390/bs4030320

Ritschel, L. A., Tone, E. B., Schoemann, A. M., & Lim, N. E. (2015). Psychometric properties of the difficulties in emotion regulation scale across demographic groups. *Psychological Assessment*, *27*(3), 944-954. https://doi.org/10.1037/pas0000099

Rivera-Rivera, N., Pérez-Pedrogo, C., Calaf, M., & Sánchez-Cardona, I. (2021). Translation, cultural adaptation, and psychometric properties of the Spanish version of the Combat Exposure Scale (CES-S) with U.S. military Spanish speaking Latino veterans living in the Caribbean: A cross-sectional preliminary data study. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. https://doi.org/10.1037/tra0001099

Schnyder, U., Ehlers, A., Elbert, T., Foa, E. B., Gersons, B. P., Resick, P. A., Shapiro, F., & Cloitre, M. (2015). Psychotherapies for PTSD: What do they have in common?. *European Journal of Psychotraumatology*, *6*, 28186. https://doi.org/10.3402/ejpt.v6.28186

Sit, H. F., Ling, R., Lam, A. I. F., Chen, W., Latkin, C. A., & Hall, B. J. (2020). The Cultural Adaptation of Step-by-Step: An Intervention to Address Depression Among Chinese Young Adults. *Frontiers in psychiatry*, *11*, 650. https://doi.org/10.3389/fpsyt.2020.00650

Spector-Mersel, G., & Gilbar, O. (2021). From military masculinity toward hybrid masculinities: Constructing a new sense of manhood among veterans treated for PTSS. *Men and Masculinities*, *24*(5), 862-883. https://doi.org/10.1177/1097184X211038049

Tombaugh, T. N., & McIntyre, N. J. (1992). The mini-mental state examination: A comprehensive review. *Journal of the American Geriatrics Society*, *40*(9), 922-935. https://doi.org/10.1111/j.1532-5415.1992.tb01992.x

Trappler, B., & Newville, H. (2007). Trauma healing via cognitive behavior therapy in chronically hospitalized patients. *The Psychiatric quarterly*, *78*(4), 317-325. https://doi.org/10.1007/s11126-007-9049-8

Vera, M., Juarbe, D., Hernández, N., Obén, A., Pérez-Pedrogo, C., & Chaplin, W. F. (2012). Probable posttraumatic stress disorder and psychiatric co-morbidity among Latino primary care patients in Puerto Rico. *Journal of Depression & Anxiety*, *1*(5), 124. https://doi.org/10.4172/2167-1044.1000124

Weiss, B. J., Azevedo, K., Webb, K., Gimeno, J., & Cloitre, M. (2018). Telemental health delivery of skills training in affective and interpersonal regulation (STAIR) for rural women veterans who have experienced military sexual trauma. *Journal of Traumatic Stress*, *31*(4), 620-625. https://doi.org/10.1002/jts.22305

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