Designing a Culturally Appropriate Group Navigation Model to Improve Mental and Emotional Health Equity for Spanish-Speaking Latina Women

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Specific Aims

Hispanic women (Latinas) experience mental and emotional health (MEH) concerns and disorders that often go unrecognized by health providers, and even when recognized, Latinas have low-levels of treatment follow-through with biomedical modalities. Using a novel community-directed, solution-based approach to increase access to existing services and nurture culturally meaningful social relationships, it is possible to address social determinants of health and reduce these disparities.

The **goal** of this study is to implement such an approach conceptualized by a community health worker (CHW) to pilot an innovative, multi-level intervention to address social and structural determinants that negatively influence MEH disparities for Latinas from low-income households. The proposed research integrates CHW navigation with group peer support. Both of these strategies have been shown to be culturally appropriate and effective for improving a variety of health outcomes with this population. Our transdisciplinary, community-engaged team will use a convergent parallel mixed method research design to assess the feasibility of the intervention and its impact on six domains of interest: 1) emotional support, 2) informational support, 3) depression, 4) social isolation, 5) empowerment, and 6) social determinants needs. As part of our preparation for future extramural funding, we will include development of an advocacy plan for multi-level social change impact.

Aim 1. ***Create a group navigation model to improve mental and emotional health equity for Spanish-speaking Latina women***. In a series of peer group sessions facilitated by Guadalupe Fuentes, a CHW who designed the model, we will create a culturally-appropriate, non-stigmatizing group intervention. The group process will allow participants to explore their own MEH, better understand the ways that mental health influences well-being and everyday dynamics of their lives, and to develop empowering knowledge and action plans through the support of other women. We will document group discussions, processes, and themes, gather information about women's explanatory models of MEH, and administer a multidimensional survey to capture information about the domains of interest. Through individual case management, Fuentes will work individually with women from the groups to identify their specific social and structural determinants needs, assist them to make an individual action plan, provide them with information about available resources, and help them navigate systems and access resources and services. We will document participant needs and navigation outcomes. **Hypotheses**: Participation will **decrease** depression, social isolation, and social determinants needs, and **increase** emotional support, informational support, and women's sense of empowerment.

Aim 2. ***Create an advocacy plan***. With data gathered in group meetings and individual navigation sessions, we will identify social and structural barriers that negatively influence participants' MEH outcomes and ability to access resources and services. We will create an advocacy plan to address structural and policy barriers that can be implemented by CHWs and advocacy groups in the future. **Hypotheses**: We can identify factors that negatively influence the MEH and well-being of Latinas. We hypothesize that in the future, we can use this knowledge to develop a strategic plan with the potential to address socio-structural and policy barriers through advocacy.

Aim 3. ***Assess the feasibility of the intervention***. We will track recruitment, attrition, attendance at group sessions, and attendance at individual CHW navigation meetings. We will gather survey data and qualitative data to document participant experiences with and perceptions of the group process, working with the CHW, and the value of the intervention. **Hypotheses**: The intervention we pilot will be feasible, acceptable, valuable, and culturally appropriate.

Expected Outcome. This pilot study will use team science to test an intervention that emerged organically in the community and contribute to building the next generation of health disparities research using knowledge generated through solution-based investigation as the foundation for submitting an NIH R21 research proposal.

Significance

Latina MEH Disparities: New Mexico (NM) is one of five majority-minority states with 48% of the population identifying as Hispanic, a group that experiences poor health outcomes.[1] Moreover, there is evidence of an "immigrant paradox" or "nativity effect," wherein recent immigrants experience mental and emotional health (MEH) disorders at lower rates than native born Hispanics.[2] However, others have cautioned that Hispanics/Latinos are not a monolithic group[3] even within the immigrant community. More recent **research has shown that social-structural conditions negatively influence** the health of the immigrant population,[4–7] with significant disparities in the realm of MEH.[8,9] In particular, providers in Albuquerque's International District have **identified MEH as a significant concern among Spanish-speaking Hispanic women (Latinas), especially those from the Mexican immigrant community.** Through our research and community work with this population, members of our team have found that Latinas often: 1) misrecognize MEH symptoms and are unsure how they can be addressed through existing community resources, 2) require assistance identifying and navigating systems and services, 3) lack social and emotional support, and 4) experience personal disempowerment.

The growing acceptance of **social determinants of health** frameworks that move beyond individual health in primary care settings[10] has been a huge advance in health research for improving health outcomes, especially in relation to addressing health disparities.[6,7,11,12] However, it is clear that a social determinants framework must go beyond recognizing that social determinants exist to examining the mechanisms through which social determinants operate[13] and *how* they contribute to decision-making within structural and policy arenas.[14] In relation to MEH, although there are evidence-based guidelines for treating individuals, these fail to address social and structural factors that contribute to disease prevalence, or to sufficiently consider culture in intervention design. We believe that given disparities in Latina MEH in NM, it is important to take a different approach. Increasing Latina MEH equity requires understanding culturally- and experientially-based explanatory models of MEH, attending to social and structural determinants, and designing non-stigmatizing, culturally-appropriate strategies for working in the community to emphasize social connectivity, empowerment, advocacy for self and others, access to resources and services, and collective engagement to identify needed policy change.

Innovation

The proposed project is **innovative** in a number of ways: 1) we use a project design that emerged organically from expertise in the community, 2) we integrate two successful and culturally appropriate approaches in a novel way, 3) we use a multi-level socioecological approach to address social and structural determinants, and 4) we incorporate future advocacy to address structural barriers.

Community-based Innovation: At the same time that Latina MEH is an enormous concern in NM, there are two contextual factors at play that offer opportunities for us to develop a novel way to address women's concerns while promoting health equity. The proposed project will **leverage existing resources and knowledge in an innovative, culturally-appropriate way.** This strengths-based approach integrates wisdom and evidence from community work and research in NM related to CHWs and Latina social dynamics. We will implement **a group navigation model that combines CHW-assisted navigation with peer group support**. This approach was conceptualized by Principal Community Mentor and Co-Investigator, Guadalupe Fuentes, a CHW with over 20 years' experience. Fuentes recognizes the synergistic nature of factors that negatively influence MEH outcomes for Spanish-speaking Latinas, including social Isolation, depression, and other emotional disorders. In her CHW role, Fuentes has encountered Latinas with significant MEH that are not currently being addressed through the existing health care system. The novelty of this pilot is in recognizing and addressing these conditions as interrelated in order to develop strategies to counter disparities in treatment and access.

Building on the Existing CHW Model: In NM, a robust effort has been made to develop a systematic approach to helping people navigate health systems and access community resources through the creation of a variety of important CHW programs. These programs have been shown to successfully

address health needs of New Mexicans who would otherwise lack information about or access to resources and services.[15–18] Currently, most NM CHW programs tend to involve interaction between a CHW and an individual client. The relationship between the CHW and the client can be very personal and in best-case scenarios, is culturally-appropriate. However, we believe that this interaction could be further strengthened by incorporating a group dynamic with the capacity to contextualize MEH within the context of peer validation and support for the recognition of the effect of everyday stressors. **Our innovative model builds on existing CHW approaches, allowing women to receive both individual and group support to address their needs, while developing personal relationships and increasing understanding of social determinants that influence their lives**.

Recognizing the Importance of the Social-Relational: Research among Latinos[16,19,20] has demonstrated the centrality of social relationships and peer support as factors influencing Latina MEH. **The proposed intervention will innovatively integrate CHW navigation with peer support using a novel structured dialogue approach[16,20] that combines expert group facilitation with open-ended discussion to allow participants to share experiences and insights, and to define themes discussed with support from the facilitator.** Structured dialogue can be empowering for women through the development of positive personal strategies for dealing with MEH.[20] Examples of empowerment include strengthening interpersonal relationships, learning about and navigating systems to access resources, improving "literacy" of social and structural dynamics that influence individual, family and community health, and feeling socially connected.

Eliciting Explanatory Models (EM): Kleinman developed the elicitation of EM to understand how social worlds affect and are affected by illness.[21] EM are now widely used in medical schools and clinical settings. Doctors ask, "What do you call this problem?" and "What do you believe is the cause of this problem?" in an effort to open dialogue with patients to reveal their understanding of illness and treatments. **As a methodological innovation of the proposed project, a facilitator of the same cultural background as participants (Fuentes) who is also trained in Western conceptualizations of MEH, will elicit EM from participants in a group setting.** Using structured dialogue, this process will allow participants to develop personal and collective MEH conceptual repertoires. As such, Fuentes will bi-directionally translate understandings of MEH and facilitate identification of appropriate treatments.

Approach

Theoretical Model: The model in the study is informed by **socioecological approaches**[22] to address disparities and affect change at **multiple levels** as broadly constructed by a **social and structural determinants of health framework**.[23] We included attention to change at the level of the individual, the social group, and external infrastructure (e.g. political, legal, economic and other social/institutional factors). Our pilot addressed social and structural determinants at each of these levels.

Research Design: We uses a **convergent parallel mixed method research design**[24] to implement an intervention to affect **six domains of interest** in the lives of Latinas: 1) emotional support, 2) informational support, 3) depression, 4) social isolation, 5) empowerment, and 6) social determinants needs. Further, we will assess the feasibility of implementing this model with 30 participants. The intervention integrated navigation assistance and case management by a CHW with a peer support group. We gathered both qualitative and quantitative data using a variety of instruments and methods as described below, and we will integrate different types of data during analysis and interpretation.

Team Expertise & Roles: Our transdisciplinary team integrated expertise from anthropology, community-engaged research, social work, counseling, community navigation, and biostatistics, and we are well situated to conduct the proposed research. **Julia Meredith Hess, PhD, the PI,** is a cultural anthropologist and Research Assistant Professor of Pediatrics in the Prevention Research Center. She has over 20 years' experience conducting community-engaged research with migrants and other marginalized people to improve health and well-being. **Guadalupe Fuentes, Principal Community Mentor and Co-Investigator**, was trained as a Special Education teacher in Aguascalientes, Mexico and

for 10+ years she has worked as a CHW in Albuquerque. **Research Mentor, Janet Page-Reeves, PhD** is an Associate Professor and cultural anthropologist in Family & Community Medicine. **Cameron Solomon** ss a statistician affiliated with the UNM Prevention Research Center. **Annette Carrion** is a UNM student who will be the project Research Assistant. Hess and Fuentes, with assistance from Page-Reeves and Solosmon, designed this study to examine the feasibility and efficacy of Fuentes' proposed intervention model. Hess, in addition to overall direction of the study, will lead the qualitative components, assist with data collection, lead team analytical discussions, and be responsible for budgets and reporting. Fuentes will lead implementation of the intervention, including recruiting, facilitating the groups, and individual case management, and she will participate in collection and analysis of the data. Page-Reeves will meet regularly with Hess and Fuentes to discuss project activities and outcomes, assist with data collection, and participate in analytical team discussions. Solomon was responsible for statistical analysis of the quantitative data and will participate in team analytical discussions. Carrion will assist Fuentes to conduct the classes, collect data, enter survey and program data into REDCap, assist with qualitative coding, and participate in team analytic discussions. **Community Mentor #1 Jackie Perez, LCSW,** is the Director of The Hopkins Center counseling office, a facility operated by Centro Sávila, a nonprofit agency providing affordable mental health services to Spanish-speaking Latinos. **Community Mentor #2 Alma Olivas,** a CHW with expertise in advocacy work, is a senior CHW at Centro Sávila. **Centro Sávila will be our community partner agency,** and **Bill Wagner, Director of Centro Sávila, will be our project's liaison.** Fuentes, Carrion, Perez and Olivas will work on this project under a contract with Centro Sávila. Perez will provide input for facilitation of groups and interpretation of any MEH concerns that arise. Olivas will provide support and input for the resource access component and for developing the advocacy plan. Wagner will provide oversight for the project contract with Centro Sávila.

Population: This project involved Spanish-speaking Latinas from low-income households. Participants was recruited from the International District and South Valley neighborhoods of Albuquerque and screened for language, self-reported ethnic identity as Latino/Hispanic, and self-reported income below 250% of the Federal Poverty Level. The majority of the participants were Mexican immigrants with one participant who was from Central America and one who was a second generation Mexican immigrant.

Recruitment: During month #2 prior to the start of the intervention, Fuentes recruited 30 participants through the Pathways Program, the Simplemente Salud Clinic and Centro Sávila. In the course of regular meetings with clients who request a range of services, she identified identify and invite those who might benefit from the proposed model. While particpants experessed interest int eh program, lower numbers than anticipated joined the study from the first 3 cohort. We therefore changed the implementation strategy to allow for two sequential cohorts, one in the Fall and and one in the Spring.

Intervention Implementation:

MONTH #1: Planning, logistics, & preparation.

MONTH #2: Recruitment.

MONTH #3: During month #3, each cohort of 10 participants participated in four two-hour classes held weekly and facilitated by Fuentes with assistance from Carrion. Class 1 included introductions and open-ended discussion of participants' perspectives on and experiences with MEH challenges including eliciting explanatory models of illness using a structured dialogue approach. In Class 2, Fuentes presented information on concepts of MEH including anxiety, depression, and social isolation, and the group explored ways that participants' own experience may align with these concepts. In Class 3 participants identified and give name to their feelings and experiences and begin to consider services they might be interested in accessing. In Class 4, Alma Olivas provided information about relevant health care and other resources, for example, school counselors, domestic violence services, Centro Sávila, The Hopkins Center, couples counseling, UNM mental health services/counseling, and church support groups.

MONTH #4: Over the first three weeks of month #4 of the intervention, the team conducted a preliminary analysis of class notes, observations and audio (described in the data analysis section below) to identify common themes and specific resource and service needs for each participant, and in week 4 of month #4, reconvene the groups for Class 5 to discuss findings and individual experiences with accessing resources and services since Class 4 and individual participants will develop action plans.

MONTHS #5-7: Fuentes provided individual case management to assist participants to access resources and navigate systems to achieve goals identified in their individual action plans.

MONTH #8: We reconvened the groups for Class 6 to engage in a follow-up discussion of outcomes and to administer the post-survey.

Mixed method data collection.

Construct	Instrument	# of Items	Time point
Demographic Info		**18 items**	**B only**
Depression	**PHQ-9**	**9 items**	**B&F**
Emotional Support	**PROMIS [24,25]**	**8 items**	**B&F**
Informational Support	**PROMIS[26]**	**8 items**	**B&F**
Social Isolation	**PROMIS[25]**	**8 items**	**B&F**
Resiliency	**CD-RISC**	**25 items**	**B&F**
Adverse Childhood Events	**ACES**	**10 items**	**F**
ACES Resiliency	**ACES + Resiliency**	**12 items**	**B&F**
Eval & Feasibility		**8 items**	**F**

Quantitative data collection: Data was stored in a database created in UNM's secure data capture system, REDCap. We tracked recruitment, attrition, attendance at group sessions, and attendance at individual CHW navigation meetings. Pre-/Post-data was gathered at baseline (Class 1) and follow-up (Class 6) in the form of a multi-dimensional survey (see table). The survey will include: A) demographic questions to characterize participants, B) program evaluation/feasibility questions to document participant experiences with and perceptions of the group process, working with the CHW, and the value of the intervention, C) seven reliable instruments that have been validated in English and Spanish to measure the six domains of interest: a) emotional support, b) informational support, c) social isolation ; d) depression; e) ACES; and f) resiliency.

Qualitative data collection: Group class sessions were audio-recorded. Hess and/or Carrion attended Classes 1 and 6 for each cohort and take observational notes. Analytical notes taken during team meetings. Notes from individual case management sessions, individual resource action plans, and the Advocacy Plan will be documented and analyzed.

Data Analysis

Quantitative analysis: Descriptive statistics were presented for baseline participant characteristics: means and standard deviations or medians and quartiles for continuous measures, and frequencies and percentages for categorical measures. All instrument measures at baseline and follow-up were summarized with appropriate descriptive statistics. The seven quantitative measures from the PHQ-9, PROMIS support instruments, and PPS-R were reported as unadjusted mean scores and their 95% confidence intervals (CIs) at each of baseline and follow-up, as well as for the changes from baseline to follow-up. We predicted with a sample size of 30, we would be able to detect medium effect sizes (Cohen's *d*=0.53) of instrument change scores between the two time points (unadjusted type I error rate α=0.05, power 1-β=0.80). SAS 9.4 will be used for all statistical analyses.

Qualitative analysis: We employed a constructivist grounded theory approach which is a well-known way to explicate processes, in this case change related to the intervention.[31] Theory is "grounded" in the data themselves. Constructivist grounded theory therefore uses a combined inductive

and deductive approach, coupled with the recognition that study participants and researchers 'co-construct' data, thus making it a good fit for community-engaged research. As such, analyses require inclusion of participant perspectives and meaning to be fully developed.[31] A key aspect of this approach is its iterative nature, thus analysis will be ongoing and begin at baseline. Beginning in Month 3, notes from audio recordings were checked for accuracy and imported into NVivo 11, a qualitative data analysis software program. Hess trained Carrion in qualitative coding techniques and all qualitative data will be independently coded by Hess and Carrion. Analysis began with 1) text-based coding, marking recurrent themes or statements, 2) as themes emerge, Hess and Carrion met to define and standardize them, agree on a structural framework and to determine how themes should be applied to coding, 3) Hess and Carrion used focused coding[31] of prominent thematic clusters and constant comparison techniques to conduct preliminary analysis of prominent themes, 4) we conducted member checking[32] through sharing these preliminary interpretations during Class 4, using methods developed by CBPR researchers to elicit feedback and interpretation from the group, which we then incorporated into our analses.[33,34] For Aim 1, qualitative analysis of narratives from class discussion and observational notes provided insights into women's explanatory models of MEH to inform the case management and resource access phase of the intervention, the dynamics of the structured dialogue group process, how women develop and use action plans to navigate and access resources, how they explain and describe their experience in this process, and the extent to which empowering processes emerge. For Aim 2, we analyzed challenges and barriers identified by participants and identify potential strategies to promote institutional and policy changes that would positively affect MEH through advocacy. Aim 3 was assessed by looking at evaluation process data for participant perspectives on the feasibility, acceptability, value and cultural appropriateness of the intervention model.

Results

Intervention was acceptable and feasible. Increase in resiliency was our most robust quantitative finding. Social, emotional and informational empowerment scores improved, but not in statistically significant way. Depression scores worsened, which could reflect the effectiveness of the psychoeducation component. Qualitative results: participants' experiences in the intervention underscored the importance of recognizing cultural differences in values and meaning related to MEH: 1) Self-advocacy and self-efficacy (learning how to say "no" or set limits as Latinas) ; 2) Addressing violence (in domestic settings, in families, social violence) ; 3) Isolation and socializing (recognizing differences in U.S. v. Latin America) . Overall, the results demonstrated the importance of multilevel interventions that address mental health at multiple levels: 1) Individual:

Research Timeline	Month											
Activity	1	2	3	4	5	6	7	8	9	10	11	12
Planning/Logistics												
Recruitment												
Cohort 1 (Classes 1-4)												
Quantitative Baseline Interview												
Cohort 2 (Classes 1-4)												
Cohort 3 (Classes 1-4)												
Analysis of Class Data												
Class 5 – Discuss Findings, Resource Access Plan												
Individual Case Management												
Class 6 – Follow-up to Discuss Outcomes												
Quantitative post-interview												
Data Analysis of Outcome Class												
NMPHA (Present Advocacy Plan)												
Report results in Community Venues												
Final Report for TREE Center												

addressing stigma, recognizing the prevalence depression and anxiety, investing in self and life purpose, developing coping skills, self-esteem, agency/empowerment and emotional awareness. 2) Family: recognizing/helping other family members, redefining family in U.S. context; 3) Community: Providers-knowing who to see, what questions to ask; Organizational—what organizations offer, which are accessible. Finally, these results can inform administrative/systems/policy change to improve mental health equity for Spanish-speaking Latina women.

Conclusions

The study showed that interventions designed by community members effectively address barriers to addressing MEH (sociocultural attitudes and responses to MEH, current context and effects on Latinas). The research broadened our understanding of how MEH is impacted by sociocultural, economic, and policy-level factors is necessary to create effective interventions for addressing MEH. Preliminary results offer insight into how multilevel change is needed to improve mental health equity.

The recruitment process showed that potential participants recognized a great need for such interventions among Spanish-speaking Latinas, but stigma, as well as family and work obligations made it difficult for women to commit to the class at the outset. However, the benefits of attending the class have spread by word of mouth, if funding were to be found for continued intervention, it is certain that there would be robust participation. Another major limitation for this project and community-based work generally were the bureaucratic barriers/mismatch between the university and the community-based organizations to ensure timely payment for the organization. Additionally, survey completion during class was a barrier. In the future, a plan to collect baseline and follow-up data in person would make the first session flow better and be less intimidating for participants.

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