

**Tier 2 Pilot Grant Application: Establishing Proof-of-Concept
Winter 2024 Cover Sheet**

Project Information

Please provide the following information.

Project Title	A child sexual abuse intervention in Latin America: A pilot study of the family boardgame “Kit Mi Escudo”
Budget Request from Initiative	\$65,000
Budget Match (if applicable)	\$5,000 (Epi SPH) + \$7,500 (SPH) + ? (CSDE)
Total Project Budget	\$72,500

Applicant Information

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Abstract

Please provide a description of your project appropriate for a lay reader. Limit your description to no more than 250 words.

Child sexual abuse (CSA) is a global health issue impacting children's rights and wellbeing, with 1 in 5 women and 1 in 13 men reporting CSA experiences. The issue is particularly acute in low- and middle-income countries (LMICs), where research and interventions are scarce due to limited funding and surveillance. In Latin America, efforts to prevent CSA are minimal, with only a handful of programs evaluated, highlighting a significant gap in protective measures for children.

Fundación Azulado, a non-profit dedicated to preventing child abuse in Ecuador, has developed the "Mi Escudo" kit, a family board game aimed at enhancing children's knowledge and attitudes regarding CSA protection skills. The kit encourages open communication on critical topics such as bodily autonomy and identifying safe individuals, aiming to empower children with the skills to protect themselves against CSA.

This project will assess the impact of the kit through a 12-month group intervention pilot study involving 12 schools across different socioeconomic backgrounds. The study will: (1) assess changes and retention in CSA knowledge and attitudes among children aged 5 to 12, (2) evaluate differences in knowledge/attitudes changes and retention among children of different socioeconomic status, and (3) identify implementation barriers and facilitators through in-depth interviews with participants.

By establishing the kit's effectiveness, this initiative aims to contribute to the global fight against CSA and support broader adoption, including among immigrant communities in Washington State. The project's findings will serve as a foundation for a subsequent NIH RFA application focused on unveiling health and healthcare disparities in Latin America, reinforcing the importance of tailored interventions in addressing CSA across diverse communities.

Tier 2 Research Plan

Child sexual abuse (CSA) is a global health issue that infringes on the rights and wellbeing of children. One in 5 women and 1 in 13 men report experiencing CSA in their lifetime [1]. CSA has severe immediate and lifelong consequences, including mental health issues, substance abuse, and other chronic health problems [2-4]. There is limited research on CSA in many low- and middle-income countries (LMICs) due to a lack of funding and surveillance [5-6]. Further, in LMICs, the lack of data on CSA prevalence, monitoring, and program evaluation both bespeak and contribute to the marginalization of vulnerable populations and leaves them underrepresented or erased from the literature.

All children are at risk of CSA, however, there may be more vulnerable groups. According to the Child Welfare Information Gateway, child sexual abuse affects children from all socio-economic backgrounds, but children from families with fewer resources face higher risk due to lack of support and protection [X]. In Latin America and the Caribbean, poverty remains a significant challenge, especially in Ecuador, where over 45% of children and adolescents live in poverty and where the reported rate of sexual violence reaches 21%, conditions associated with overcrowding, family disintegration, migration, drug addiction, and discrimination [X]. In LMICs, there are additional structural factors that complicate these risks including the relative lack of resources that contribute to lower SES are specifically, under-developed child protection policies and legal loopholes for abusers [X], culturally-condoned abuse [X], increased corruption, and armed conflict.

Interventions to prevent CSA in Latin America are limited. According to a 2022 systematic review, only eight CSA programs have been evaluated within LMICs[7]. Of these, only two were conducted in Latin America. In Ecuador, MPI Bustamante and Fundación Azulado found that a school-based self-protection program increased and maintained CSA knowledge post-intervention[8]. Founded in 2013, Fundación Azulado is a non-profit organization in Ecuador dedicated to preventing child abuse promoting the well-being of children and adolescents . Through their educational and psychological programs, Azulado has provided children and families with essential skills and resources to promote resilience, positive development and support mental and emotional health.

Mi Escudo kit is a family board game designed by Azulado to improve children's knowledge and attitudes regarding CSA protection skills. The kit comprises five interactive games to encourage open communication between caregivers and children about bodily autonomy, recognizing discomfort, identifying trustworthy individuals, and responding to potential risks. The first game uses the story "Uncomfortable Secrets" to teach children about bodily sensations related to secrets and identifying individuals they may trust. The second game, "Knowing my body" utilizes illustrated cards and colored tokens to learn about private body parts. The third game focuses on recognizing likes and dislikes through sensory exploration with cards. The fourth game develops strategies for handling potential risks through collaborative storytelling. Lastly, the "¿Yes or No?" game is a series of CSA-related questions to encourage discussions and reinforce learnt concepts. Our goal *is to generate proof-of-concept data that validates the effectiveness of this kit in raising awareness and prevention of CSA.*

Our aims:

1. Assess changes and retention in knowledge and attitudes regarding CSA protection skills among children ages 5 to 12 after interacting with Mi Escudo
2. Evaluate differences in knowledge/attitudes changes and retention among children of different socioeconomic status
3. Identify barriers and facilitators of Mi Escudo and its implementation through in-depth interviews with caregivers and children post-intervention



Approach:

Aim 1 and Aim 2: Sample and Recruitment. We will conduct a 12-month group intervention pilot study in Ecuador. In collaboration with Azulado, we will select 12 partner schools of different socioeconomic status (6 intervention, 6 control). We will use convenient sampling to select schools in the three continental regions of Ecuador (Coast, Highlands and Amazon). To evaluate differences in knowledge changes across socioeconomic status, we will select a high/middle-income school and a low-income school per region (and their corresponding controls). Once we have support from school authorities, we will obtain lists of all registered children ages 5 through 11 to select a random sample of 50-60 students/school. We will send their parents a written invitation to participate in the project. We will continue to invite families until there are 40 children from each school whose parents have agreed to participate. Multiple children per family can participate as long as criteria are met. After explaining the objectives, details, and procedures of the project, parents who agree to participate will sign an informed consent form. Their child(ren) will be asked if they are willing to participate and to provide their assent. The kit will be distributed to all families in the intervention schools. During this time, the coordinator will call the families to check if they have been using the kit. As an incentive to play, the coordinator will ask a quick question from the kit, and all respondents that answer correctly will enter a raffle to win \$20. Families will take the kit home with incentives raffled among participants. Children in the control group will be given the kit only upon completion of the study.

Aim 1 and Aim 2: Data collection. Participants will complete a brief demographic survey, the Children Knowledge of Abuse Questionnaire-short (CKAQ-short)[X] and the “What if” Situations Test-III (WISTIII) [X]. The CKAQ-short and WISTIII are validated scales that assess CSA knowledge and attitudes and are currently being adapted to be culturally sensitive for Ecuadorian children (ongoing project MPI: Bustamante, Ponce and Santaularia). Children will be given the option to fill out the questionnaire themselves or have it administered by a trained interviewer. For children who are unable to read and write, the questionnaires will be administered by a trained interviewer. Children from intervention and control groups will answer questionnaires at the same three time points: before the intervention, 3-4 weeks after kit distribution, and 6 months post-intervention. Azulado has established protocols for responding to any CSA cases identified during the project.

Aim 1 and Aim 2: Analysis. The CKAQ-short and WIST-III will be scored based on the authors’ recommendations [X] for each child and at each timepoint. Changes in scores will be evaluated using a mixed linear regression model with school and child identification as clustering variables and adjusted degrees of freedom to account for nesting and clustering by school [X]. Demographic characteristics of children will be included in the model as potential confounders.

Aim 3: Sample and Recruitment. We will randomly invite 5 families per intervention school for in-depth interviews to identify barriers and facilitators of Mi Escudo and its implementation.

Aim 3: Data collection. Semi structured in-depth interviews (45-60 minutes) will be conducted by members of the study team. These will be conducted in Spanish, 3-4 weeks after kit distribution, in a private space coordinated with each school and family. They will be audio-recorded for transcription. Audios will be transcribed *verbatim*.

Aim 3: Analysis. The bilingual team will assign 2-3 members to independently synthesize and summarize the major themes from each transcript using an inductive approach. The team will then meet to reach consensus regarding key themes to create a specific coding approach. Based on this coding scheme, the individual team members will return to the transcripts to code previously identified themes.

The Mi Escudo kit has significant potential as a tool in the global fight against CSA. By establishing empirical evidence of its efficacy, we can pave the way for broader adoption globally,

including in immigrant communities in Washington State. This proof-of-concept interdisciplinary project will provide pilot evidence to apply for the new NIH RFA Unveiling Health and Healthcare Disparities in Non-Communicable and Chronic Diseases in Latin America. [9]

Tier 2 Evaluation Plan

The measures of success for this project include: 1) Achievement of Knowledge and Attitude Changes: If pre- and post-intervention surveys show improvements in children's knowledge and attitudes towards CSA prevention; 2) Sustained Impact: Long-term follow-up assessments demonstrate that the knowledge and attitude changes are retained over time; 3) Positive Feedback and High Engagement: High participation rates, session completions, and positive feedback from participants and facilitators suggest the intervention is well-received and engaging; 4) Overcoming Barriers: Successfully identifying and addressing implementation barriers, as revealed through qualitative feedback, indicates effective problem-solving and adaptability; and 5) Dissemination of results: The results of the study will be disseminated back to the study participants and Azulado community networks. We will also write two peer reviewed manuscripts.

This proof-of-concept interdisciplinary project will provide pilot evidence to apply for the new NIH RFA Unveiling Health and Healthcare Disparities in Non-Communicable and Chronic Diseases in Latin America: Setting the Stage for Better Health Outcomes Across the Hemisphere. [9] The RFA has special

Timeline for Study Activities												
	Grant Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Team meetings with investigators	█	█	█	█	█	█	█	█	█	█	█	█
Obtain IRB Approval	█	█										
Hire and train RAs	█	█										
Recruitment			█	█	█							
Baseline Survey			█	█	█							
Distribute Kit			█	█	█							
1-month Follow-up Survey					█	█						
6-month Follow-up Survey									█	█		
Check-ins on intervention					█	█	█	█	█			
Aim 1 and Aim 2 Analysis									█	█		
Recruitment Aim 3									█	█		
Conduct in-depth interview									█	█		
Transcription and analysis of interviews										█	█	
Disseminate Findings												█
Draft manuscripts and submit for publication										█	█	█
Write grant application for the next phase										█	█	█

interest areas that specifically identify several components of our project including the evaluation interventions at the community level and a focus on interpersonal violence of which CSA is a subtype of.

Biographies

N. Jeanie Santaularia is an Assistant Professor in the School of Public Health at UW. She is a social epidemiologist with content and methodological expertise in violence prevention and health equity. Her contributions to this project include content expertise in child maltreatment, qualitative data methodology, participating in data analysis, writing, and health equity focusing on centering voices that are traditionally marginalized.

Gabriela Bustamante Callejas is a full-time faculty member at the School of Public Health, Universidad San Francisco de Quito (USFQ), with a PhD in Environmental Health Sciences from the University of Minnesota, where she also completed a postdoctoral fellowship in Cancer-related Health Disparities. My research focuses on the social determinants of health, especially how neighborhood contexts influence cancer and chronic disease outcomes. More recently, her research focuses on cervical cancer prevention, sexual and menstrual health, and community-engaged interventions for preventable diseases. Since 2014, her work with Fundación Azulado has expanded to combat CSA. An evaluation of Azulado's school-based 10-week CSA self-protection program showed that it significantly improved children's knowledge, with effects lasting six months post-intervention[8]. This study highlighted the effectiveness of educational interventions in enhancing CSA awareness and prevention. Along with MPI Dr. Santaularia and Ponce, Dr. Bustamante is co-leading a funded project (USFQ Collaboration Grants \$9,000) to adapt the CKAQ-short and WISTIII scales to be culturally sensitive for Ecuadorian children and be used in this project. In the proposed project, Dr. Bustamante will bring her methodological expertise to the forefront, coordinating on-site logistics with Azulado. This role utilizes her background in epidemiologic methods, group-based experimental studies and analytical skills in mixed-methods studies. Additionally, she will supervise the work of the USFQ student, work closely with Azulado and the study coordinator, participate in data analysis, writing of the manuscript and subsequent grant applications.

Paulina Ponce is the co-founder and current director of Fundación Azulado. She is a Clinical Child Psychologist with a master's degree in Community Counseling and more than 20 years of experience in the field of CSA prevention and treatment. She will lead the Azulado team with on-site logistics, participate in data analysis and writing.

Carmen

India J. Ornelas, PhD, MPH, Associate Professor, Health Services, School of Public Health (co-Principal Investigator). I am Interim Chair and an Associate Professor in the Department of Health Systems and Population Health at the University of Washington. My research focuses on understanding and addressing racial/ethnic health disparities, especially in Latino immigrant communities. My background is in health behavior and health promotion and I have over 20 years of research and public health practice experience. I have extensive experience conducting community-based participatory research (CBPR) to achieve health equity, including study design, data collection, and data analysis using both qualitative and quantitative methodological approaches. I am currently the Principal Investigator of a NIH funded R01 testing an intervention (Amigas Latinas Motivando el Alma) to reduce mental health disparities among Latina immigrant women. I have previously led a NIAAA-funded R34 to test the efficacy of a culturally adapted intervention to reduce unhealthy alcohol use among Latino immigrant men and have been a co-Investigator on several other research projects in the areas of cancer

prevention, mental health and substance use. I also led a PHI COVID-19 rapid response project to address mental health needs of Latina immigrants in King County. My research has resulted in several publications on health equity, social determinants of health and health promotion in diverse communities. I will bring my expertise in quantitative and qualitative methods, community engaged research, and health promotion interventions to this study.

Tier 2 Project Budget (add additional pages if funding is matched by more than three entities)

	Requested from Initiative	Funding Match by: _____	Funding Match by: _____	Funding Match by: _____
Salaries			-	-
Faculty	1,500			
Staff	15,200			
Student				
Benefits Fringe Benefits Based on Payroll Load Rate In Effect				
Supplies and Materials Supplies, Equipment Under \$2,000, etc.	18,582			
Equipment Equipment Over \$2,000	0			
Travel Per Diem Lodging/Meals/Expenses, Air Fare, Mileage, Car Rental	3,240			
Tuition For graduate students				
Other (wire transfer fee)	50			
Total Direct Costs				

Budget Justification

This budget proposal outlines the allocation of funds necessary for the successful execution of our project in collaboration with Fundación Azulado, USFQ (Universidad San Francisco de Quito), and the University of Washington. The total budget encompasses travel expenses, personnel compensation, production costs, participant incentives, and administrative fees.

Personnel compensation: \$50,620

In partnership with Azulado, we have aim to allocate budget to support the following personnel:

Study Coordinator: \$7,200 is allocated to cover 50% of the salary for an existing position at Azulado for 12 months, supporting project management and implementation.

Consulting Fees: Azulado will receive \$8,000 to cover additional personnel time. Gabriela Bustamante will receive \$1,500 to support and coordinate the project on-site

University of Washington Student Assistant: \$32,000 will cover tuition fees, benefits, and a stipend for a graduate student assistant to support the project with coordination, data analysis, writing the manuscript and subsequent grant application.

USFQ Student Assistant: \$1,920 will support a USFQ student's involvement and on-site coordination.

Supplies and materials: \$18,582

We budgeted \$10,752 for the production of 480 "Kit Mi Escudo" units at \$22.40 each, essential for intervention delivery. Participants who complete all surveys will receive a \$10 incentive (total \$4,800) and interview participants (n=30) will receive \$25 each (total \$750). As an incentive to play, we will raffle a \$20 gift card once. A total of \$1800 is budgeted for the transcription of 30 hours of interviews at \$1/hour to enable data analysis. Additionally, \$460 is budgeted for copies.

Travel Expenses: \$3,240

We plan a total of three trips to each location for data collection (before kit is distributed, 3-4 weeks after kit distribution, and 6 months after). Sites will be chosen strategically to optimize resources. Since both Azulado and USFQ are located in Quito, the schools from the Highlands will be chosen in this area to avoid overnight stays. Meanwhile collecting data in the coast and Amazon will require a single overnight stay. All visits are budgeted for two people. Three trips to the coast will total \$1,980, covering transportation and food expenses, and overnight accommodations. Three trips to the highlands total \$240, including transportation and food. Three trips to the Amazon total \$1,020, including transportation, food, and overnight accommodations.

Administrative costs: \$50

A wire transfer fee of \$50 to Ecuador covers the cost of international transactions for disbursements.

Matching funds:

The sources of additional funds are University of Washington School of Public Health and Epidemiology Department. These will be used to complete the overall budget. They are particularly important to support a UW Research Assistant (the largest single expense) and to properly compensate our community partner for their involvement in this project (\$15,200).

HERE IS A MORE STREAMLINED VERSION:

This budget proposal delineates the fund allocation essential for the effective execution of our collaborative project with Fundación Azulado, Universidad San Francisco de Quito (USFQ), and the University of Washington. It covers travel expenses, personnel salaries, production costs, participant incentives, and administrative fees, ensuring comprehensive support for all project phases.

Personnel compensation: \$50,620

In partnership with Azulado, we have aim to allocate budget to support the following personnel:

- **Study Coordinator:** \$7,200 to cover 50% of the salary for an existing position at Azulado for 12 months, supporting project management and implementation.
- **Consulting Fees:** Azulado will receive \$8,000 to cover additional personnel time. Gabriela Bustamante will receive \$1,500 to support and coordinate the project on-site.
- **Graduate Student Assistant (University of Washington):** \$32,000 to cover tuition, benefits, and stipends for project support.
- **USFQ Student Assistant:** \$1,920 will support a USFQ student's involvement and on-site support.

Supplies and materials: \$18,582

- **Kit Mi Escudo Production:** \$10,752 for 480 units, crucial for the intervention's delivery.
- **Survey Completion Incentives:** \$4,800 (\$10 per participant) to encourage full participation.
- **Interview Incentives:** \$750 for 30 participants at \$25 each.
- **Play Incentives:** we will raffle a \$20 gift card once
- **Interview Transcription:** \$1,800 for transcription of interviews
- **Copies:** \$460

Travel Expenses: \$3,240

Allocations for travel are planned for two people and structured around three strategic data collection visits: initial, post-distribution (3-4 weeks), and follow-up (6 months). To maximize resource efficiency:

- **Highlands (around Quito):** \$240 for three trips, eliminating the need for accommodations by selecting schools in proximity to our partners (Azulado and USFQ).
- **Coast:** \$1,980 for three trips, incorporating transportation, meals, and single-night stays.
- **Amazon:** \$1,020 for three trips, including all above plus accommodations.

Administrative costs: \$50

A wire transfer fee of \$50 to Ecuador covers the cost of international transactions for disbursements.

Matching funds:

The sources of additional funds are.... These will be used to complete the overall budget. They are particularly important to support a UW Research Assistant (the largest single expense) and to properly compensate our community partner for their involvement in this project (\$15,200).

References

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