



UNIVERSITY HOSPITALS CASE MEDICAL CENTER/  
CASE WESTERN RESERVE UNIVERSITY

# Community-Based Health Interventions for Mercado Global Artisans and Their Families

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Kathryn D'Angelo	Aaron Lear, MD
Hisam Goueli, MD	Hikari Morikawa, MA, MSSA
Kathie Greene, MD	Barbara Ajtupal Quieju
Alexandria Howard, MD	Katharina Schmalstieg, MD
Mori J Morikawa, MD, MPH, Chief Consultant for MG	

## **I. BACKGROUND:**

Through a partnership with Mercado Global (MG), members of the Global Health Track within the Department of Family Medicine and Community Health at Case Western Reserve University (CASE-FM-GHT) have developed a series of innovative programs to address the health concerns of the participating artisans from MG. These programs were created to address the primary health concerns of the MG artisans, primarily musculoskeletal pain and stress and anxiety. These programs include *Pain Away* to address pain and *Power to Change* to address the stress and anxiety concerns. We have also developed a participatory health education approach, *Do-It-Together Health Education* which aims to help the artisans improve their health knowledge and skills by participating health skits/role plays and discussions. A pilot project with these three programs was started in the communities of La Fe and Chipiactal in September 2013. Our goal is to expand these programs to all MG artisan communities over the next 2-4 years.

Joined by the doctors (Dr. Aaron Lear, MD, as the leader) of the Global Health Interest Group, Center for Family Medicine, Akron General Medical Center, the community health interventions were implemented in La Fe and Chipiactal on March 18 & 19, 2014, respectively.

## **II. FINDINGS AND ASSESSMENT:**

### **A. Pain Away**

*Pain Away* was designed to support musculoskeletal health while alleviating lifestyle and work-related pain among the artisans of Mercado Global. The initial program included four exercises to address cervical and thoracic spine complaints.

The exercises were originally demonstrated for the artisans during the September 2013 site visit. It was observed that the artisans were excited to participate in the *Pain Away* program and it was hoped that these exercises would be performed on a regular basis. During our current visit it was reported that the artisans had rarely performed the exercise program since our last group visit.

#### **1) La Fe**

1. The artisans exercised only a couple of times after our last visit, thought to be for the following reasons:
  - a. The team was unable to communicate the importance of regularly performing the exercises during the last visit
  - b. The follow-up visits for reinforcement by the in-country health education team were cancelled due to unprecedented orders for merchandise to MG.
2. The artisans showed some awkwardness while performing the exercises due to multiple factors including:
  - a. Poor flexibility and limited range of motion in the neck, back and shoulders
  - b. Traditional tight clothing
  - c. Unfamiliarity to the concept of exercising
  - d. Lack of understanding regarding program's objectives
  - e. Confusion during English-Spanish-Kaqchiquel translation
  - f. Apparent embarrassment while performing the exercises in front of each other

3. The artisans experienced and understood that moving the painful area correctly helped relieve pain.
4. Immediate and real time feedback by the team was given to the artisans to reinforce the appropriate form for the exercises. This was clearly helpful in aiding them in correct form and posture during the exercises.
5. Artisans complained of low back pain, as well as lateral hip pain related to repetitive motion while working, and requested exercises to address these complaints.
6. Artisans were encouraged to perform the exercises 3 times/week.

## 2) Chipiacul

In review of Pain Away program after the visit to La Fe, alterations were made to the program introduction. We elected to incorporate the history of the development of the program, including previous artisans' complaints of pain in the neck and shoulders. We also reinforced the concept that "Exercise is Medicine", and with regular performance of these exercises we expect that the regular pain they feel in their neck and posterior shoulders/thoracic spine will be improved.

1. After completion of the day's activities, individualized attention was provided for an older member of the group who was identified as having specific shoulder pain.
2. Although the artisans showed awkwardness due to the same reasons as the artisans in La Fe, they enthusiastically engaged in the exercises and did them well.
3. The artisans requested exercises to address low back pain.
4. One of the artisans volunteered to serve as a leader for regular exercising among the group.
5. The artisans were encouraged to perform the exercises 3 times/week.
6. It was also suggested at the end of the visit that doing the exercises as a group, and with music might be more enjoyable for them.

## B. Power to Change

*Power to Change* is a multi-session program designed to help the artisans recognize their power to become change agents in the communities and acquire problem-solving skills as a group. During the previous visits, the artisans in La Fe and Chipiacul participated in the first two steps of the program and at the conclusion of these visits, each group chose a group name as part of the team building process.

### 1) La Fe

1. The artisans primarily recalled demonstrations of health education topics from the *Do-It-Together Health Education* program more than the *Power to Change* topics discussed in previous sessions.
2. The artisans struggled with the abstract thought processing inherent in the program design.
3. The program implementation was complicated by un-translated conversation amongst the artisans as well as sequential translation and back-translation from English to Kaqchiquel.

## 2) Chipiacul

In order to reinforce the topics covered at the previous visit, the session began with review of photographs from the September 2013 visit and discussion of what happened that day.

1. The artisans recalled the team-building activity and some of the discussions.
2. The artisans showed limited sense of group identity.
3. The artisans had difficulty identifying their strengths by their cultural attitude that pride is arrogant and sinful.
4. Without directly discussing them, the artisans subtly referenced existing conflicts between some in the Chipiacul community and the artisans; as well as within the artisans group.
5. After performing the “land mine” game the artisans were able to discuss the intended message of the game: the importance of communication.
6. During the conflict resolution activity, the artisans did not attempt to communicate with the other groups within the game to dissolve the conflicts created in the game. They did report on our way out of the village that they had figured out a solution to the conflict after the discussions of their experiences.

### **III.RECOMMENDATIONS:**

1: Packaging of *Pain Away* program should be completed before further implementation.

- Clearly identify *Pain Away*'s objective to resolve musculoskeletal pain for the participants
- Design additional exercises to address lower back and hip pain
- Identify a group leader in each community to organize group exercise
- Encourage regular use of the program through artisan-planned reminder system
- Consider implementing a regular reminder (SMS text alert to group leader)

2: Power to Change program should be based on ‘learning by doing’ method.

- Clearly address the purpose of *Power to Change* as a method to create a positive mindset to support future community development
- Refine the *Power to Change* process and update the implementation manual
- Provide the MG coordinator with a Spanish-language implementation manual
- Organize each program session around a dynamic activity (Learning by Doing)
- Promote meaningful, error-limited artisan participation by arranging MG team preparation, training & activity simulation prior to site visits
- Use of visual cues where appropriate to limit the reliance on translation

### **IV: FUTURE DIRECTION:**

- Assessment method of both programs should be developed and implemented in future visits using participatory evaluation methodology.
- Aim to implement our community intervention programs to all MG communities by the end of

2016.

- Consultant group will visit MG communities 3 times a year, September, January and May.
- Include the *Do-It-Together Health Education* project in future visits.

# **Appendix 1: Community Health Intervention: La Fe March 18**

## **The Team:**

Aaron Lear, MD  
Alexandria Howard, MD  
Barbara Ajtupal Quieju  
Hikari Morikawa, MA, MSSA  
Hisam Goueli, MD  
Katharina Schmalstieg, MD  
Kathie Greene, MD  
Kathryn D'Angelo  
Mori J Morikawa, MD, MPH (Leader)

8am: Departure from Panajachel

9:05am: Arrival at La Fe

Present: 8 artisan women and above mentioned team members

## **1.) Follow up “Pain Away” program**

Following an introduction of the team members we assessed the knowledge and usage of the “Pain Away” program that was introduced six months ago during the last visit to the community (September 2013). The artisan women reported that they have done the neck and shoulder exercises only once or twice but also stated they liked them. They were also asked if they currently have pain anywhere in particular. Several women complained of low back pain, and one complained of lateral hip pain from repetitive external rotation motion with her loom. Instructed by Dr. Aaron Lear, artisans and team members formed a circle and performed the four exercises:

- A) Moving the chin back and forth (“chicken neck”) 10x
- B) Moving the head in a circle 5x each side
- C) Bringing the hands behind the neck, then moving elbows together and all the way to the side (“chicken wings”) 10x
- D) Bringing the arm behind the back (“carrying the baby”), then bending forward and moving arms up 10x

The instructions were translated by Barbara Ajtupal Quieju. The team members helped Dr. Lear to correct the women if needed. A total of 40 minutes was spent on “Pain Away” activity.

## **2.) Follow up “Power to change”**

After doing the exercises outside, artisans and team members moved inside to follow up on “Power to change” which was also introduced to the community six months ago. At the previous visit (September 2013) the women had given themselves the name *Artisanas de Mujeres Luchadoras*, they recalled this name from the previous visit. Dr. Hisam Goueli and Hikari Morikawa now asked them what they liked about the community La Fe and got the following answers:

- The vegetables
- The trees
- That they have water
- The good air
- They felt that the community is blessed.

- The good soil
- That they have a school
- That they have enough space
- That they have firewood

The women were then asked what they liked about each other. After difficulty with this general question, and clear reticence to give any answers, they were asked to describe what they liked about each individual member of the group one at a time. This led to more discussion and likelihood to give answers:

- Being a nice person
- Being willing to share
- Being a hard worker
- Being generous
- Being honest and straight forward
- Being funny
- Being responsible
- Being encouraging
- Having the desire to communicate
- Being an early riser and good mother

The next step was to use these good qualities in order to play the “Landmine Game”. Therefore an obstacle course out of chairs and other big objects was set up outside. The artisan women were then asked to form pairs; one person was blindfolded and needed to cross the field of mines represented by the obstacles. The other person was supposed to guide her blindfolded partner through the course by just giving verbal instructions. If a blindfolded person touched a mine / bomb she was redirected to the start line. Roles were switched after successful completion of the task. This activity took 20 minutes and was followed by a discussion inside.

The women were asked what made it possible to finish the course and answered the following:

- To go step by step / go slowly
- Clear instructions
- Good listening
- To repeat the instructions
- Good communication
- To start later than the others

Things that made it hard to pass the course were identified as the following:

- Going too fast
- Being unable to see
- To have incomplete instructions
- To hear other people talking (since all pairs started at the same time)

Dr. Goueli emphasized the point that the good qualities within the community and the acquired knowledge of how to pass obstacles can be used to solve a problem. The group was given the “homework” to think about a problem within the community that they would like to solve.

To wrap up the whole group stepped outside again for another round of the “Pain Away” instructed by Dr. Lear and one artisan woman.

The team left La Fe at 12 o’clock.

## Post-visit analysis at the Mercado Global office:

### 1.) “Pain away”

- Since the exercises are new to the artisan women they felt embarrassed to do them in front of each other. One woman suggested doing them with closed eyes. Team members brought up the idea to point out to the women that these new exercises might look funny (legitimize their concerns) or even to let the women pick a funny name for them.
- The idea was brought up to encourage/consider video instructions in their mother tongue instead of having the instructions translated by one person and demonstrated by another.
- The team agreed that the program needed better marketing. Therefore it should be emphasized that Dr. Lear is a specialist in sports medicine/MSK care and that the exercises are medicine for neck and shoulder pain if done on a regular basis.
- It should be considered to measure ROM (range of motion) before and after doing the program in order to show immediate results.
- It should be pointed out to the artisans that they might be hurting during the exercises but that they will have less pain in the long run.
- Dr. Lear will develop and add lower back and hip exercises to the program with special consideration to their traditional clothing (long skirts) to address complaints of low back pain and lateral hip pain.
- The idea was brought up to introduce a facilitator/leader within in each community to encourage the performance of the exercises.
- It was suggested that the compliance with the program may increase if we could introduce music. Barbara will ask the community to pick the kind of music they would like and maybe one or two songs.
- A journal with or without stickers could be given to each woman to chart the times she has exercise in order to improve long-term adherence.
- The decision was made to assess what the women usually do for pain before starting the program.

### 2.) “Power to change”

- The assessment was made that the women had forgotten most of the initial session of the program.
- It is hard / uncommon for the artisans to suggest their own strengths; but when specifically asked they were able to describe the good qualities of one another.
- The obstacles in the games were not seen as a symbol of obstacles in real life which might be due to the fact that this is a very foreign concept to them.
- When asked about problems in their lives, the women only named problems around their job for Mercado Global. Therefore we need to point out that we are here through MG but that our perspective is much broader.
- We believe we did not get a true / full answer about problems within the community as we are still outsiders.
- We believe that understanding the group dynamics is very important when performing the *Power to Change* program
- Learning while doing seems to work preferentially compared with discussions/talking
- Naming a project / problem should be the next step.
- We should consider a roadmap to visually document for the women where they are at within the program.
- Part of the program might have gotten lost in translation and / or questions were too broad.



**Adjustments to the following day's *Power to Change* program:**

- 1.) We will show pictures at the beginning of to review the past session.
- 2.) We will be more specific when asking a questions
- 3.) The team members will also form pairs and join the "Landmine Game" instead of just observing.

## **Appendix 2**

### **Community Health Intervention Chipiacul**

#### **Wednesday, March 19, 2014**

7am: Departure

8:15am: Arrival

Present : 11 artisan women and above mentioned team members

#### **A. Introduction**

The group left Panajachel at 7:00am, and arrived at Chipiacul around 8:15am. After waiting for the women to get ready for the session, we gathered in a room and began introductions around 8:45am. Ten artisan women were present at the beginning of our session, and one more woman joined during the Power to Change session, after Pain Away had been performed. Using a projector, we showed pictures from the previous visit to the women, to remind them of the activities they completed six months ago. The women recognized the pictures, and also remembered their name, Las Margaritas, when reminded. The women were able to identify members of the team who were present at the previous trip six months ago.

#### **B. Pain Away Program**

Dr. Aaron Lear began the Pain Away session following the group introductions. He began by asking how many times the women completed the exercises since the group's last visit six months ago. The consensus was that none of the women completed the exercises more than once or twice since the team's visit. When asked where they feel the most pain, the women responded with neck and lower back pain being the worst for them to deal with. The women denied taking medicine for this pain. Dr. Lear proceeded to inform the women that these exercises act as medicine for your body. By completing these exercises often, it is like you are giving medicine to your body to help with the pain. The group proceeded to go outside and begin the exercises. Dr. Lear noted that pain while completing these exercises was normal, and the women may feel some discomfort while doing them. The group completed the following exercises:

- A) Neck retraction/extension (chicken neck) x10
- B) Neck circles x5 each direction
- C) Shoulder abduction/external rotation (chicken wings) x10
- D) Carry the baby x10

The group of women did very well with the exercises, both with the form of their exercises and the enthusiasm to complete the tasks. Some women noted pain in their shoulders when completing the exercises. Dr. Lear reassured them that this was normal, and if they complete the exercises consistently, this pain may go away. The women reported feeling the expected muscles working in the neck and posterior shoulders/thoracic spine while doing the exercises. When asked if there was a before/after difference in the motion and pain in the neck, several nodded their heads, and one woman volunteered that the motion in her neck was "mas suave" or smoother. At the end of the session the women were asked if one among them would volunteer to lead the exercises in the village in the future, and one artisan, Elena, volunteered to lead the exercises. After completion of the Power to Change portion of the visit, the women completed a shortened version of the exercises with Elena working with Dr. Lear to lead the program. They exhibited adequate understanding of the exercises and how to do them. They were encouraged repeatedly to do the exercises 3 times/week, and we suggested the possibility of doing them together, and adding music to the routine.

#### **C. Power to Change Program**

Following the Pain Away program, the group continued back into the room for the Power to Change session of our day. Hikari Morikawa began the conversation by asking the women what does Chipiacul mean? The women described the meaning to be a land big trees and vines. This prompted the question of what do you like about Chipiacul? The women responded with the following:

- The view: the lake, the volcanos, clean air
- Crops: broccoli and green beans
- Quiet place: no violence; a safe place to live
- Population growth
- Community aspects: church, market, electricity

Hikari then proceeded to prompt the women to close their eyes and hold hands. Hikari asked the women to think about what they did yesterday. The women responded with the following:

- embroidery
- Working on the loom
- Helping the children
- Getting paid

The next question prompted to the women was, “what are you proud of about yourself?” The women responded mainly with skill-based answers, like being able to weave or sew. The women struggled to give more abstract answers related to qualities about themselves. When prompted with the question about what do they like about the group, the women could not answer directly. From the stories they told, we picked out qualities such as hardworking, thankful, generous, and helpful. The question of solving arguments was also unanswered. It was difficult for the women to understand these concepts.

The minefield game was the next activity. The group proceeded out to the courtyard, and listened to the description of the game. They had difficulty understanding the concept of being blindfolded, and all walking across at once. Two members from our team demonstrated, and the group proceeded to complete the game successfully. One notable event was towards the end of the game when two women were left, and struggling to get across. The entire group rallied together to help them reach the end point successfully. This was a significant observation for the team, as the women all joined together to help the two women who were having a harder time. The women specifically mentioned that the game was difficult for them because they couldn't see anything. They made the connection to life, saying it was like when you are going through difficult periods of life, and you can't see the future. They stated that you need to rely on those around you to get through the difficult times and reach the end point. When asked how it was to be the guide, the women stated that it is easier to help the one who is blindfolded, but there is the responsibility of keeping them safe. They felt better once their partner reached the finish line, because they reached their goal safely. The women also stated this was a difficult activity because their partner had zero visibility, and they were fully responsible for guiding them through the course. They also stated it was more difficult to navigate their partner when the obstacles were moved while the game was going on by Dr. Hisam Goueli. The women identified that moving the objects were to challenge the way they think. When asked about how they could apply what they learned from this game to real life, the women identified the following:

- Giving everyone equal opinions
- Patience
- Working together is hard
- You can help each other easier when you work together

The women agreed when Dr. Goueli mentioned that the game felt like real life, with obstacles that are constantly changing and relying on others for help. When asked about real obstacles in their life, the women responded with the following:

- Illnesses

-Actions of other people

-Economy- no money for children's school or food

The final game was the chair game. Women were broken off into three separate groups. Each group was given a specific task regarding six chairs in the room. Each group did not know the other groups tasks. In the first round of the game, the women were unable to speak with each other. The room was very chaotic, and no one was able to complete their tasks because they all grabbed their separate chairs. The second round, the women in the different groups were able to speak with each other, however the result was similar. The room was still very chaotic, and each group was just focused on their own task. Not much talking occurred between the different groups in the second round. After the game was complete, the women mentioned the game was very difficult. We ended our meeting for the day with the idea that the women should think about a solution for this game. One woman mentioned that if they talk to each other, the group can work out the differences and each accomplishes their task. We wrapped up the day by answering questions, reviewing the Pain Away exercises, and reminding them to continue practicing the stretches. Barbara reported that on the way out of the village, the women reported to her that they had come up with the solution; they needed to work together allowing each team to complete their task with the chairs, then allowing the other teams to complete their task. The team departed at 11:40am and returned to Panajachel.