



A Study to Evaluate the Efficacy of a Test Product in Alleviating Body and Muscular Pain

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A STUDY TO EVALUATE THE EFFICACY OF A TEST PRODUCT IN ALLEVIATING BODY AND MUSCULAR PAIN

Princeton Consumer Research Corp. Report No: XUMUSE1F

I declare that the following report constitutes a true and faithful account of the procedures adopted and the results obtained in the performance of this study. The aspects of the study conducted by Princeton Consumer Research Corp. were performed, where relevant, in accordance with the principles of Good Clinical Research Practice.

Joanne Browne, MS
(Principal Investigator)

J. R. Browne

Date *02/04/2020*

Lynne Ellis, MD
(Consulting Physician)

Lynne Ellis MD

Date *02/04/2020*

QUALITY ASSURANCE STATEMENT

This report has been audited and is considered to be an accurate description of the methods used and an accurate presentation of the data obtained during the conduct of the study.

Anne Campbell, BS
(Quality Assurance Manager)

Anne Campbell

Date *04/Feb/2020*

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1 SUMMARY

- Protocol Title:** A Study to Evaluate the Efficacy of a Test Product in Alleviating Body and Muscular Pain
- Study design:** Single-center study utilizing self-perception questionnaires (SPQs), subject diaries, and MD interviews
- Test Article:** 1. Tuuwa Relief Oil with Herbal Boost (marketed product)
- Number of subjects:** Fifty-three (53) subjects were enrolled and completed the study.
- Type of subjects:** Healthy male and female subjects, 21 and older who have moderate to severe body pain.
- Method:** Subjects reported to the testing facility for Visit 1 at which time Informed Consent was obtained and Inclusion/Exclusion criteria was reviewed to determine eligibility for participation on the study. Qualified subjects applied the test product onsite for the first application. The pre-use self-perception questionnaire (SPQ) and pain scale score was completed prior to application. After first application a pain scale questionnaire was administered 20 minutes post first use. Then the subject was issued the test product, a subject diary, and test product instructions. Subjects were instructed to use the product for one week, at least three times per day for back, neck, knee, shoulder, joint, and/or exercise-induced pain. Subjects were asked to complete a diary to document use of the test product and assessed their pain after each use. After one week, subjects returned to the testing facility to complete a SPQ and were interviewed by a medical professional.
- Conclusion:** Overall, a statistically significant reduction in average pain score was observed by the subjects immediately after first use (30.8% decrease in pain scores from baseline, p -value = $4.04626E-11$), and one week of use (49.6% decrease in pain scores from baseline, p -value = $7.385E-17$) (minimum use of three times a day) after 1 week of product use.
- After 1 week of use, subjective Self-Perception Assessments of pain indicated subjects experienced less frequency of pain, experienced less pain upon waking and at the end of the day. Eighty-one percent (81%) of subjects stated they noticed an improvement in pain twenty minutes after using the product (p -value < 0.0001). Seventy-seven percent (77%) of subjects stated they noticed an improvement after using the test product for 7 days (p -value < 0.0001). Subjects generally felt less difficulty in their ability to stand up, stand, and walk/sit with their pain. Additionally, subjects liked how the test product felt, that it was fast absorbing, and that it was easy to apply and comfortable to use.
- Duration of study:** Study Started: 12 December 2019
Study Ended: 19 December 2019
- Location:** Princeton Consumer Research Corp.
9600 Koger Blvd North, Suite 120
St. Petersburg, FL 33702

2 KEY STUDY PERSONNEL AND RESPONSIBILITIES

Key personnel	General responsibilities
<p>Principal Investigator (PI) Joanne Browne Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd. N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300</p>	<p>The Principal Investigator (PI) will be responsible for ensuring sufficient resources are available to conduct the study and for reporting any serious adverse events to the Sponsor.</p>
<p>Consulting MD Lynne Ellis, M.D. Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd. N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300</p>	<p>The Consulting MD will conduct assessments during study visits and provide approval of the report upon finalization.</p>
<p>Study Supervisor (SS) Cassie Nesbit Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd. N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300</p>	<p>The Study Supervisor (SS) will be responsible for the conduct of the study on a daily basis.</p>
<p>Project Manager (PM) Angela Brooke, MS Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd. N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300</p>	<p>The Project Manager (PM) will be involved with the study design, compiling the results and writing the clinical report.</p>
<p>Project Coordinator (PC) Mark Xu Tuuwa, Inc. 235 Germantown Bend Cove Cordova, TN 38018 Tel: 901-218-7688 Email: info@tuuwa.com</p>	<p>The Project Coordinator (PC) will be the primary point of contact on behalf of the Sponsor of this project and will represent the Sponsor of this study.</p>

3 **OBJECTIVE**

The objective of this study was to assess the efficacy of one test product to alleviate moderate to severe self-assessed body and muscular pain utilizing self-perception questionnaires (SPQ), subject diaries, and medical professional interview.

4 **STUDY DESIGN**

This study was conducted at a single testing facility and all subjects tested the test product over a one-week period. Subjects were instructed to apply the test article to their designated pain areas as instructed. Subjects completed a Self-Perception Questionnaire (SPQ) before the first application onsite, 20 minutes (\pm 5 mins) after first application, and after one week of use. A medical professional reviewed the SPQs with the subject to help with pain assessments.

It was the responsibility of the sponsor to determine the acceptability of the testing and study designs required for submission to entities such as the Home Shopping Network, QVC, etc.

5 **SELECTION OF SUBJECTS**

5.1 **Screening**

An adequate number of subjects was screened to ensure approximately 55 subjects were enrolled onto the study so at least 50 subjects completed the study. Subjects satisfied the following inclusion and exclusion criteria accepted the prohibitions and restrictions to be enrolled onto the study.

5.2 **Inclusion Criteria**

- a) Healthy male or female, 21 and older;
- b) Experienced frequent moderate to severe (score of 4 to 10 on pain scale) body and muscle pain located in at least one of the following areas: back (upper, mid, and lower), neck, knees, or shoulder areas (joint, rotator cuff) as well as exercise-induced pain (self-assessed);
- c) Signed Informed Consent;
- d) Subject was willing to use the test product as instructed and completed the subject diary daily.

5.3 **Exclusion Criteria**

- a) Female subject was pregnant (self-reported), nursing, or planning to become pregnant;
- b) Skin disease such as psoriasis, eczema, rosacea, etc.;
- c) Skin condition such as sunburn or open wound in treatment area(s);
- d) Recent, within 3 months, surgery, stitches, or incisions to the potential treatment areas;
- e) Insulin-dependent diabetes;
- f) Subjects who regularly used OTC or prescription pain medications (daily) or were unable to refrain from using their pain medication for one week while on the study;

- g) Medical conditions or medications, which in the opinion of the Investigator, affected the safety of the subject or confounded the results of the study.

5.4 Prohibitions and Restrictions for the Duration of the Study

- a) Unwilling to modify typical physical activities for the duration of the study.
- b) Unwilling to follow study instructions and to complete the subject diary over the one-week at home use period.
- c) Unwilling to refrain from using OTC or prescription pain medication while participating in the study.

5.5 Subject withdrawal

The participation of a subject in this study was discontinued for any of the following reasons:

- the subject wished to withdraw from study participation;
- if, in the opinion of the Investigator, it was in the best interest of the subject;
- suspected adverse effects from the test article;
- inter-current illness;
- violation of the prohibitions and restrictions;
- development of an exclusion criteria;

Subjects were free to withdraw at any time and did not need to give a reason, however, every reasonable attempt was made to ascertain such reasons. The data for those subjects who were withdrawn will be included in the final clinical report but may be excluded from final data analysis.

Subjects were not followed up with after their withdrawal from the study, except in the case of a serious adverse event. Withdrawn subjects were not replaced.

6 TEST ARTICLES

A sufficient number of test articles were supplied by the Sponsor labelled as follows:

1. Tuuwa Relief Oil with Herbal Boost (marketed product)

The test article was used as supplied by the Sponsor.

The Sponsor had provided the ingredient listing for the test articles (Appendix 1 of the final protocol) and certified that the Sponsor's test articles supplied to PCR Corp for the clinical trial had been manufactured/formulated with ingredients that were safe and suitable for the products' stated purposes.

The study staff provided test product instructions to the subject as indicated below:

1. Use the oil on the troubled (pain) areas and lymph nodes and massage in until fully absorbed as many times as needed, but a minimum of 3 times a day.
2. Use the test article as a body oil the first thing in the morning and the last thing in the evening.
3. Use the test article before and after your workouts.
4. If you have a massage, have the massage therapist use the test article in place of their massage oil.

It was the responsibility of the Sponsor to determine, for each batch of the test article, the identity, strength, purity, composition and other characteristics which appropriately defined the test article, before its use in the study. The determination of its stability and documentation of methods of synthesis or derivation was also the Sponsor's responsibility.

It was the responsibility of the Sponsor that the test article met all necessary transport regulations, particularly those regulations involving the carriage of hazardous goods and the import/export of goods or equipment, and that any costs including tax/duty were fully met by the Sponsor prior to receipt of the test article at PCR CORP. No liability with regard to safe receipt or costs involved in the carriage of goods or equipment to any PCR CORP site was accepted.

After the completion of the study, subjects were permitted to retain the test article. Any remaining used and unused test article was disposed of 28 days after the completion of the study, unless requested otherwise by the Sponsor. Sponsors requesting the return of products were liable for any costs incurred.

7 STUDY PROCEDURE

Visit 1

Potential study participants reported to the testing facility where informed consent was obtained, and study eligibility was determined. The MD was present while the questionnaire was being completed and was available to assist with gathering information on the location and severity of the subject's pain from review of the Pre-Use Self-Perception Questionnaire (SPQ). Qualified subjects were enrolled onto the study and the test article was used by subjects on their target pain area for the first time at the testing facility. 20 minutes (\pm 5 minutes) following first application, the subjects completed an Immediate Post Use SPQ. The subject was provided with the test article, subject diary, and test article instructions.

Subjects were instructed to use the test article for one week (7 days) on the areas of their body where they had been experiencing pain at least three times per day. Subjects were given a diary to record use of the test product and assessed their pain one hour after each usage of the test product.

Visit 2

Subjects returned to the testing facility after completing the 7-day use period. Subjects brought the test article and diary to visit 2. The usage diary and daily pain assessment ratings were reviewed, and the test article was reviewed for compliance. Adverse events were recorded as applicable. A Post-Use Self-Perception Questionnaire (SPQ) was completed by the subjects regarding the test article's attributes and a self-assessment of pain at the end of the use period. The SPQ was reviewed by the study staff for completeness. The MD completed a similar interview with each subject as described at Visit 1. At the conclusion of this visit, the subject's participation in the study was considered complete.

7.1 Self-Perception Questionnaire

Self-Perception Questionnaires (SPQ) were provided to the subjects to complete at the testing facility during each of the two visits. At each visit, SPQs were collected and reviewed by study staff. The SPQs were used to gather information on the perceived effectiveness and acceptability of the test product.

8 **ANALYSIS OF DATA**

Statistical analysis (mean, percent change from baseline, frequency of scores, top-box analysis, and t-tests, with a p-value less than 0.05 showing significance) was conducted. The data collected was the responses supplied by the subjects on the Self-Perception Questionnaires (SPQ) and subject diaries that were completed during the study. These SPQ and pain rating results were analyzed per subject to determine the efficacy of the test product on their self-assessed moderate to severe pain.

Self-Perception Questionnaires used an eleven point numerical scale which was grouped into the following categories for assessment as follows:

Pain Intensity Questions - 0 = No Pain, 1 – 3 = Mild Pain, 4 – 6 = Moderate Pain, 7 – 10 = Severe Pain

Difficulty Due to Pain Questions – 0 = No Difficulty, 1 – 3 = Mildly Difficult, 4 – 6 = Moderately Difficult, 7 – 10 = Extremely Difficult

Pain Improvement Questions – 0 = No Improvement, 1 – 3 = Mild Improvement, 4 – 6 = Moderate Improvement, 7 – 10 = Great Improvement

Product Attribute Questions "How much did you like..." – 0 = Not at All, 1 – 3 = Mildly Like, 4 – 6 = Moderately Like, 7 – 10 = Like A Lot

Subjects were asked to indicate the frequency of their pain pre-use and after 1 week of use – No Pain, Temporary Pain, Frequent Pain, Constant Pain.

The number of subjects responding to each of these categories was determined and the percentage of each response in the study population was calculated.

Other product attribute questions utilized a five point Likert Scale where Agree and Strongly Agree were considered top responses.

There was no formal sample size calculation for this study. However, historical data showed that the responses from approximately 50 subjects was considered sufficient to be able to assess responses from SPQs

9 **STUDY ETHICS**

9.1 **Amendments to the Protocol**

Proposed changes or additions to the authorized protocol were subject to approval by the Project Manager and the Sponsor before implementation, except and insofar as Princeton Consumer Research reserved the right to make unilateral departure from the protocol to eliminate an apparent immediate hazard to subject health.

9.2 **Declaration of Helsinki**

The study conformed to the requirements of the 1964 Declaration of Helsinki and its subsequent amendments.

9.3 **Subject Consent**

Subjects were informed of the nature, purpose and known risk of the study both orally and in writing and gave their written informed consent before participating in the study. Subjects were advised that they were free to withdraw from the study at any time without being obliged to give a reason. They were compensated by PCR for their time and inconvenience.

9.4 Indemnity provision

The Sponsor was responsible, without regard to legal liability, and would indemnify Princeton Consumer Research Corp., or any of their respective officers or employees in the event of claims for compensation from subjects suffering injury or other deterioration in health or well-being as a result of participation in this study, except and insofar as such claims arise as a result of any negligent act or omission on the part of Princeton Consumer Research Corp. employees or any persons undertaking or involved in the study by arrangement with Princeton Consumer Research Corp.

10 STUDY DATA

10.1 Location and dates of the study

The study was conducted at Princeton Consumer Research Corp. in St. Petersburg, FL between 12 December 2019 and 19 December 2019.

10.2 Subjects

Fifty-six (56) subjects were consented and screened for eligibility. Three subjects did not meet eligibility criteria. Two had insufficient pain levels and one was unable to refrain from use of pain medication. Fifty-three (53) qualified subjects were enrolled and completed the study. Subjects had to have a pain intensity score of moderate to severe to qualify for enrollment on the study (score of 4 to 10 on an eleven-point scale). Please see Appendix 2 for detailed subject demographics.

Figure 1: Subject Demographics

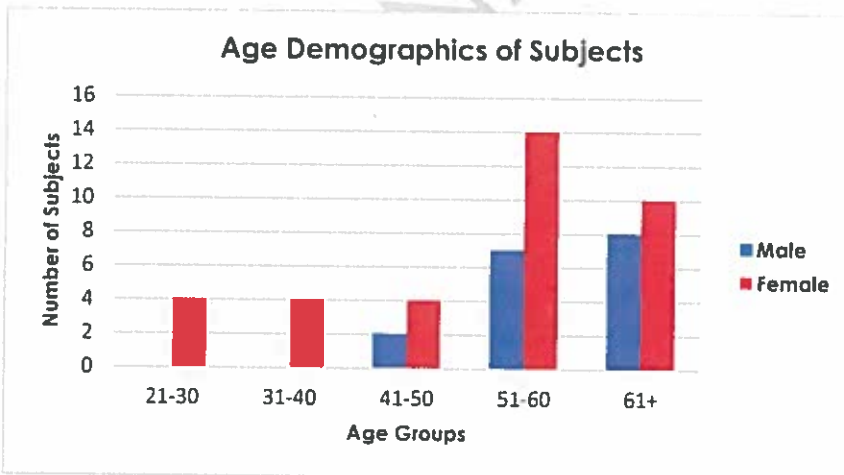
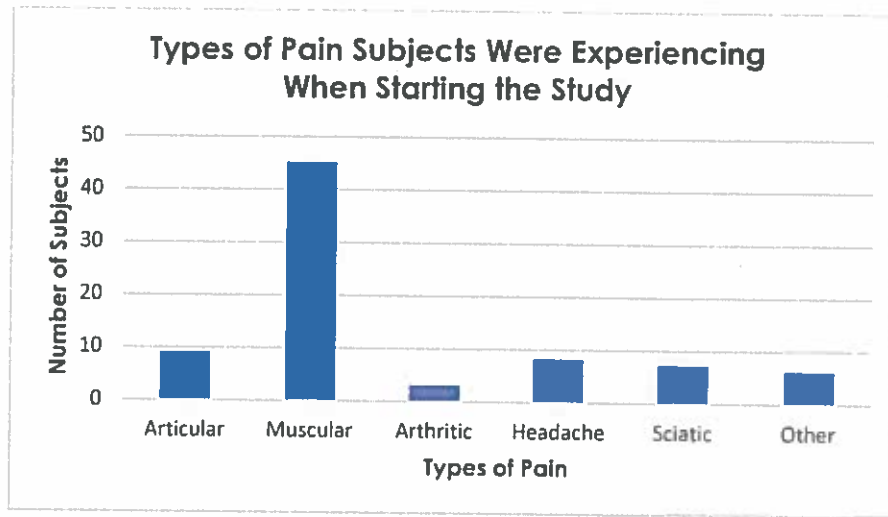


Figure 2: Types of Pain



Note: Some subjects listed more than one type of pain.

10.3 Protocol Deviations

There were no protocol deviations reported during this study.

10.4 Adverse events and severe adverse events

There were no adverse events or severe adverse events reported during this study.

10.5 Pre-Use Self-Perception Questionnaire Data

Subjects were asked the following questions to help identify areas of pain. Below is a summary of a few of these questions:

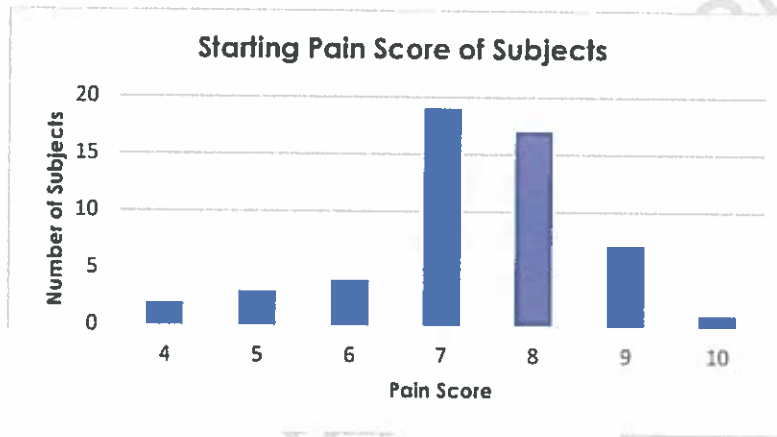
Pre-Use Self-Perception Questions	Yes	No
Do you experience a lot of stress in your life?	23/53	30/53
Do you do physical work?	28/53	25/53
Do you play any sports?	10/53	43/53
Do you have any activities in your everyday life that cause you pain?	47/53	6/53
Do you have blood circulation problems?	2/53	51/53
Do you have any inflammatory problems?	16/53	37/53
Do you feel that your pain affects your everyday life such as personal relationships, professional life?	39/53	14/53
Have you ever used any pain-relieving treatments such as creams/ointments/Oil/Massages/Pills?	48/53	5/53
If yes, did it work?	24/47	23/47

	No Pain	Temporary (1 to 2 days per week)	Frequent (3 to 4 days per week)	Constant (5 to 7 days per week)
What is the Frequency of your pain?	0/53	0/53	15/53	38/53

10.6 Pre-Use Pain Perception

To qualify for study enrollment, subjects had to have a pain rating of moderate to severe for their self-assessed pain. Pain was assessed using an 11-point scale where 0 = no pain, 1 to 3 = Mild Pain, 4 to 6 = Moderate and 7 to 10 = Severe Pain.

Figure 3: Pre-Use Pain Assessment



Pre-Use Self-Perception Questions	No Difficulties (Answered 0)	Mildly Difficult (Answered 1-3)	Moderately Difficult (Answered 4-6)	Extremely Difficult (Answered 7-10)
On a 0 to 10 scale, please rate how difficult it is for you to stand up because of pain	6/53 (11%)	1/53 (2%)	22/53 (42%)	24/53 (45%)
On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	3/53 (6%)	2/53 (4%)	13/53 (25%)	35/53 (66%)
On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	2/53 (4%)	3/53 (6%)	13/53 (25%)	35/53 (66%)
	No Pain (Answered 0)	Mild Pain (Answered 1-3)	Moderate Pain (Answered 4-6)	Severe Pain (Answered 7-10)
On a 0 to 10 scale, please rate your pain intensity when you wake in the morning	1/53 (2%)	3/53 (6%)	12/53 (23%)	37/53 (70%)
On a 0 to 10 scale, please rate your pain intensity at the end of your day	0/53 (0%)	0/53 (0%)	7/53 (13%)	46/53 (87%)
On a scale of 0 to 10, please rate your pain intensity before using the product on your pain area	0/53 (0%)	0/53 (0%)	9/53 (17%)	44/53 (83%)

10.7 20 Minutes Post-First Use Pain Perception

Pain Assessment	No Pain (Answered 0)	Mild Pain (Answered 1-3)	Moderate Pain (Answered 4-6)	Severe Pain (Answered 7-10)
On a scale of 0 to 10, please rate your pain intensity after using the product on your pain area	1/53 (2%)	8/53 (15%)	32/53 (60%)	12/53 (23%)
Pain Improvement	No Improvement (Answered 0)	Mild Improvement (Answered 1-3)	Moderate Improvement (Answered 4-6)	Great Improvement (Answered 7-10)
On a 0 to 10 scale, please rate the improvement you feel of your pain	6/53 (11%)	34/53 (64%)	9/53 (17%)	4/53 (8%)
Efficacy Assessment	Agree/Strongly Agree	Neither Agree/Nor Disagree	Disagree/Strongly Disagree	
I noticed improvement in my pain after using the treatment.	43/53 (81%)	6/53 (11%)	4/53 (8%)	

10.8 After 1 Week of Use Pain Perception

Pain Improvement	No Improvement (Answered 0)	Mild Improvement (Answered 1-3)	Moderate Improvement (Answered 4-6)	Great Improvement (Answered 7-10)
On a 0 to 10 scale, please rate the improvement in pain intensity after using the product on the area you were experiencing pain	2/53 (4%)	17/53 (32%)	17/53 (32%)	17/53 (32%)
Pain Frequency	No Pain	Temporary Pain	Frequent Pain	Constant Pain
What is the frequency of your pain now as compared to before you started using the product?	6/53 (11%)	15/53 (28%)	15/53 (28%)	17/53 (32%)
Pain Intensity/Assessment	No Pain (Answered 0)	Mild Pain (Answered 1-3)	Moderate Pain (Answered 4-6)	Severe Pain (Answered 7-10)
On a 0 to 10 scale, please rate your degree of pain intensity after using the product on the area you were experiencing pain	2/53 (4%)	26/53 (49%)	19/53 (36%)	6/53 (11%)
On a 0 – 10 scale, please rate your pain intensity when you wake in the morning	3/53 (6%)	15/53 (28%)	20/53 (38%)	15/53 (28%)
On a 0 to 10 scale, please rate your pain intensity at the end of your day	1/53 (2%)	19/53 (36%)	17/53 (32%)	16/53 (30%)

Figure 4:

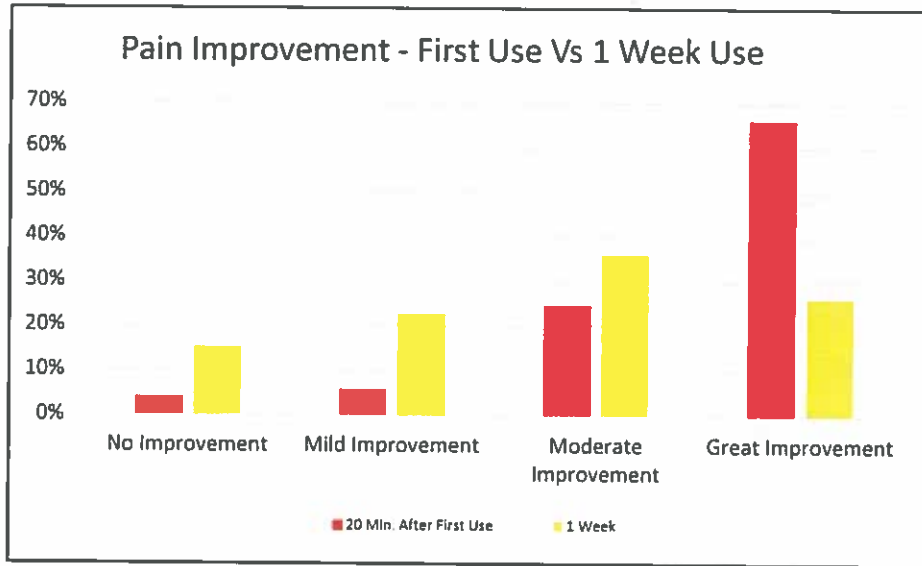


Figure 5:

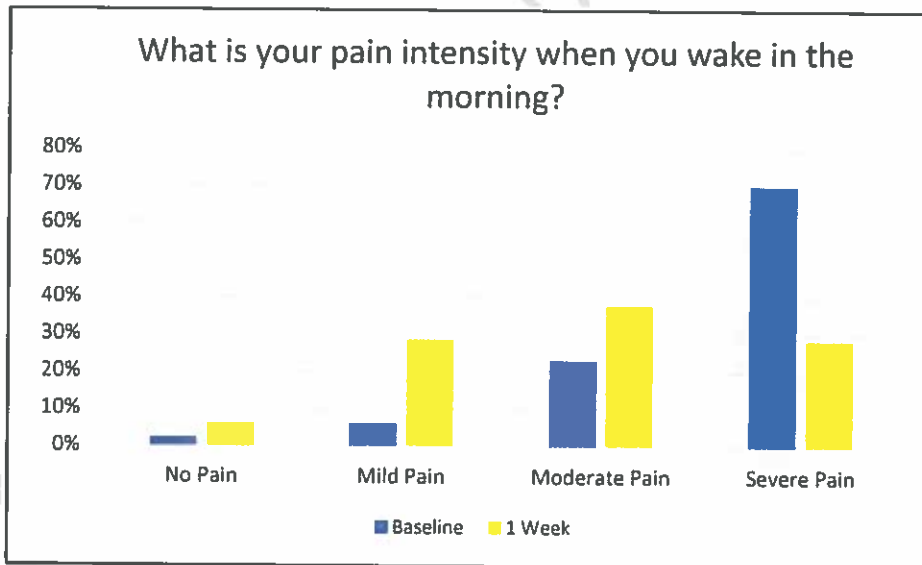


Figure 6:

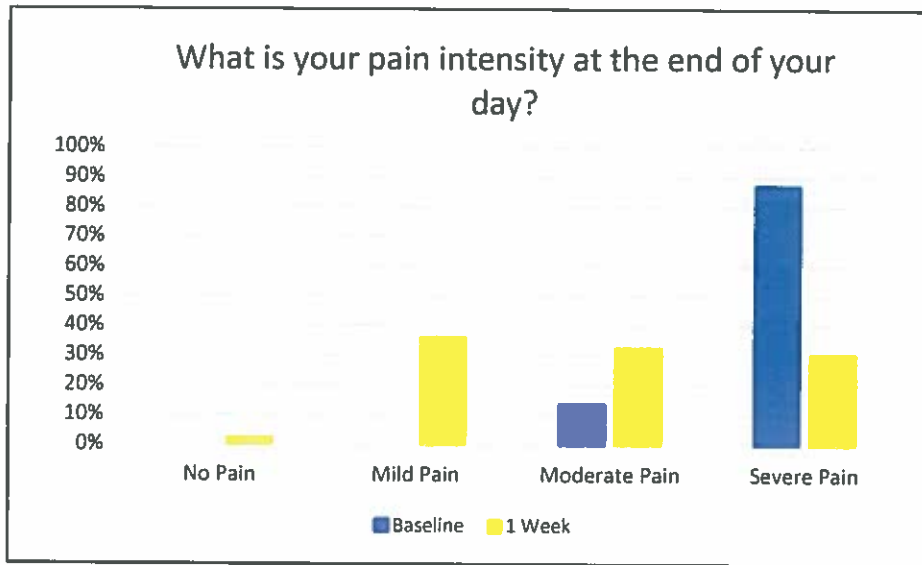


Figure 7:

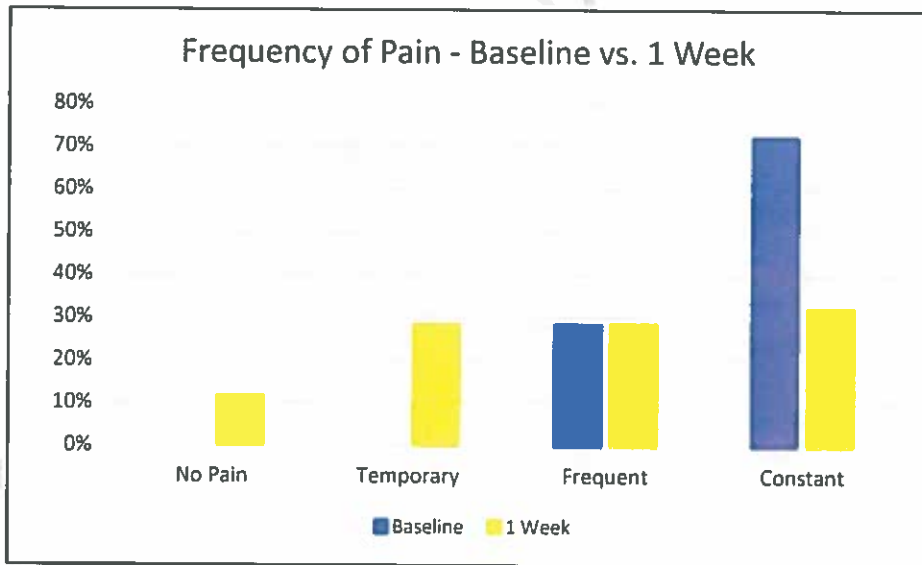
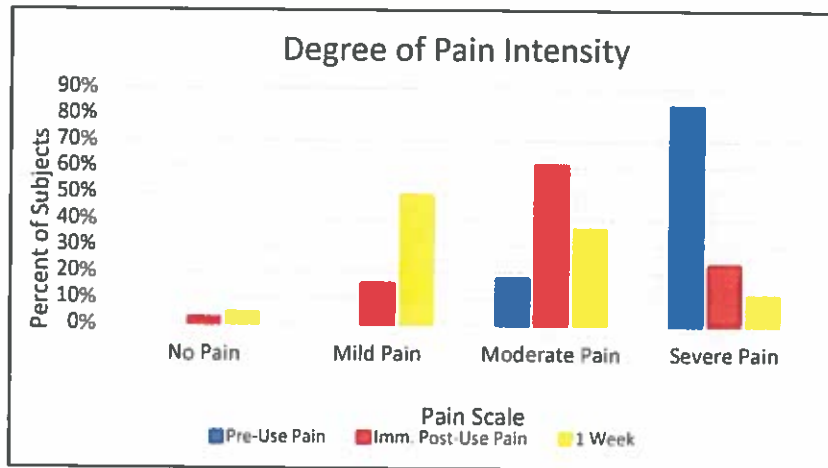


Figure 8:



Pain Assessment	No Difficulties (Answered 0)	Mildly Difficult (Answered 1-3)	Moderately Difficult (Answered 4-6)	Extremely Difficult (Answered 7-10)
On a 0 to 10 scale, please rate how difficult it is for you to stand up because of pain	13/53 (25%)	15/53 (28%)	12/53 (23%)	13/53 (25%)
On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	9/53 (17%)	14/53 (26%)	16/53 (30%)	14/53 (26%)
On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	8/53 (15%)	12/53 (23%)	19/53 (36%)	14/53 (26%)

Figure 9:

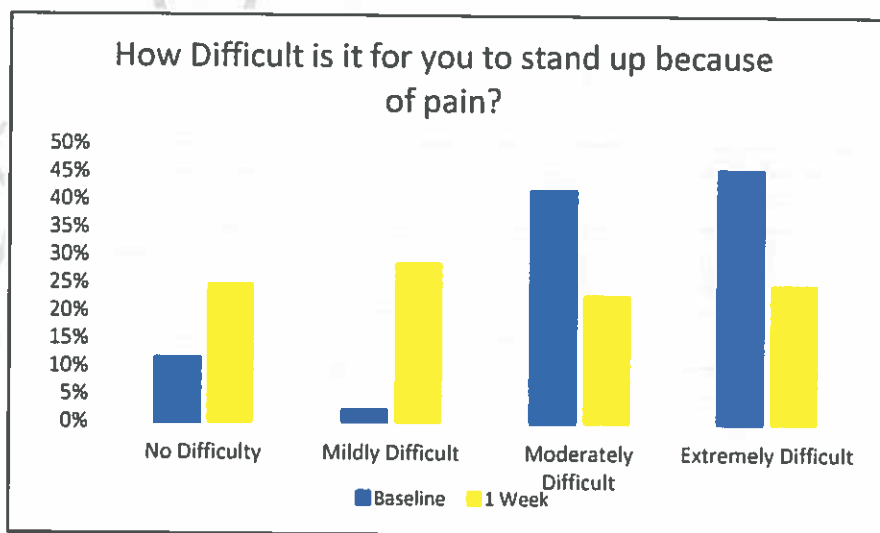


Figure 10:

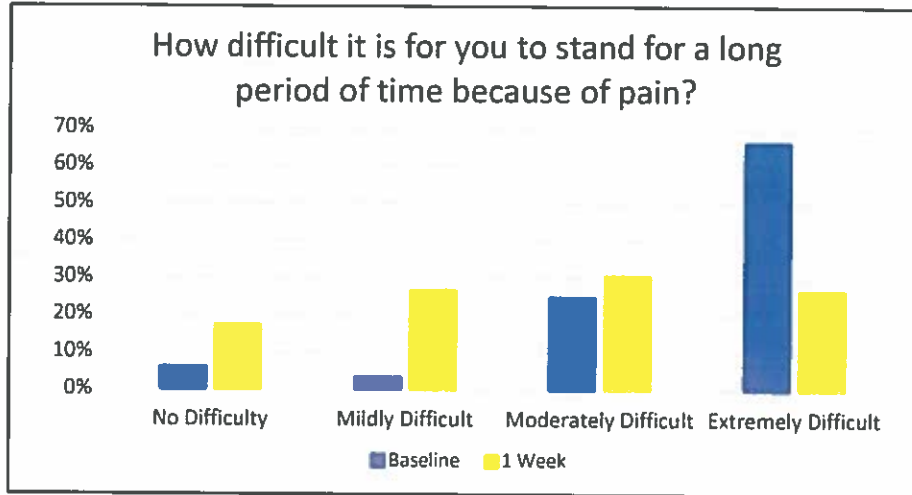
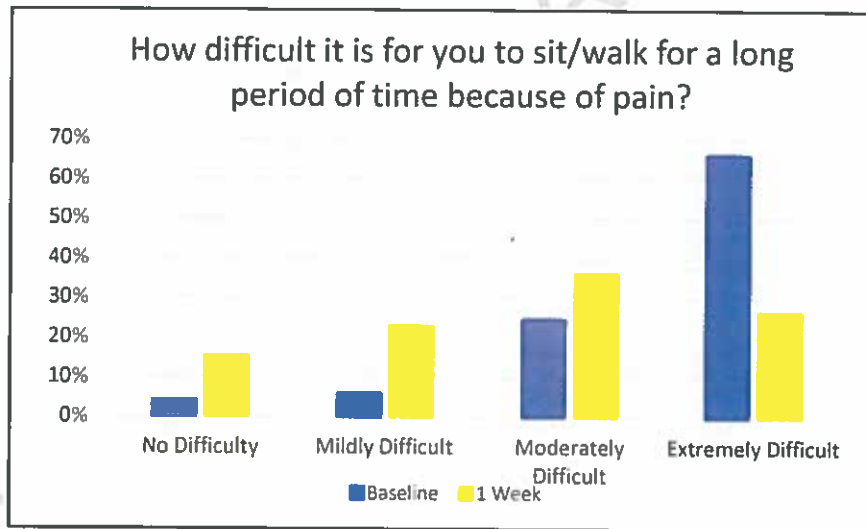


Figure 11:



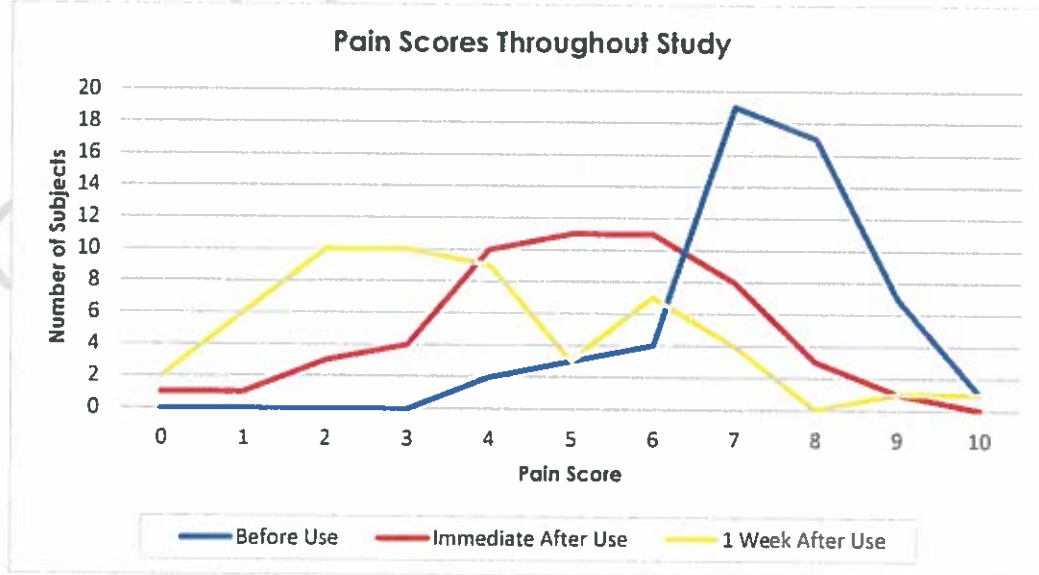
Product Attributes	Not At All (Answered 0)	Mildly (Answered 1-3)	Moderate (Answered 4-6)	A Lot (Answered 7-10)
On a 0 to 10 scale, please rate how much you like the smell of the product	8/53 (15%)	10/53 (19%)	17/53 (32%)	18/53 (34%)
On a 0 to 10 scale, please rate how much you like the feel of the product	2/53 (4%)	2/53 (4%)	17/53 (32%)	32/53 (60%)
On a 0 to 10 scale, please rate how easy and fast the product absorbed into the skin	0/53 (0%)	3/53 (6%)	13/53 (25%)	37/53 (70%)
On a 0 to 10 scale, please rate how comfortable it was to use the product	0/53 (0%)	1/53 (2%)	8/53 (15%)	44/53 (83%)

Product Attribute Questions	Agree/Strongly Agree	Neither Agree/Nor Disagree	Disagree/Strongly Disagree
I like the smell of the product	33/53 (62%)	6/53 (11%)	14/53 (26%)
I like how the product feels on my skin	45/53 (85%)	7/53 (13%)	1/53 (2%)
I felt the product was easy to apply to the area where I feel pain	50/53 (94%)	3/53 (6%)	0/53 (0%)
I felt the product was fast absorbing	45/53 (85%)	5/53 (9%)	3/53 (6%)
I felt the product was comfortable to use.	50/53 (94%)	1/53 (2%)	2/53 (4%)
I noticed an improvement in my pain after using the treatment for 7 days.	41/53 (77%)	9/53 (17%)	3/53 (6%)
I noticed my pain is less frequent now	33/53 (62%)	14/53 (26%)	6/53 (11%)
I would buy this product.	37/53 (70%)	11/53 (21%)	5/53 (9%)
I would recommend this product to family and friends.	41/53 (77%)	9/53 (17%)	3/53 (6%)

11 RESULTS

Under the conditions of this study, an overall decrease in the average pain score was observed over one week of use of the test article (before use score of 7.3, immediately after use score of 5.1, and one week after use score of 3.7). In the chart below, the line in Blue indicates that all of subjects had moderate to severe pain (scores of 4 to 10) prior to test article use. The line in Orange moved to the left as subjects used the test product thus showing a decrease in pain immediately post first use. The line in Yellow shows overall pain reduction after 1 week of use. Statistical analysis confirmed that the decrease in pain was statistically significant (p-value of 4.04626E-11 for immediately after use and 7.385E-17 for 1 week after use) when compared to baseline.

Figure 11:



Evaluation	N	Mean	% Change From Baseline	P-Value
Before Use	53	7.3		
Immediately After Use	53	5.1	-30.8%	4.04626E-11
1 Week After Use	53	3.7	-49.6%	7.385E-17

Bolded shows data that was found to be statistically significant.

As demonstrated in the end of study SPQ, the following statements pertaining to qualities of the test product were chosen as highly favourably over the testing period (1 week), (with ≥80% value being regarded as highly favourable (Strongly Agree and Agree responses)):

1. I like how the product feels on my skin.
2. I felt the product was easy to apply to the area where I feel pain.
3. I felt the product was fast absorbing.
4. I felt the product was comfortable to use.

Additionally, top box analysis on the following statements "I noticed an improvement in my pain after using the treatment (20 minutes following application)." And "I noticed an improvement in my pain after using the treatment for 7 days.", showed that 81% and 77% respectively either strongly agreed or agreed with these statements. Statistical analysis confirmed that these percentages were statistically significant confirming that more people agreed with these statements than not.

Treatment	Question	Score for Top Box	Top Box				p-value
			Not Top Box		Top Box		
			N	Percent	N	Percent	
A	Immediately After Use	4.5	10	18.87	43	81.13	<0.0001*
	1 Week After Use.	4.5	12	22.64	41	77.36	<0.0001*

Bolded shows data that was found to be statistically significant.

Data from the study is located in Appendix 3.

12 CONCLUSION

Overall, a statistically significant reduction in average pain score was observed by the subjects immediately after first use (30.8% decrease in pain scores from baseline, p-value = 4.04626E-11), and one week of use (49.6% decrease in pain scores from baseline, p-value = 7.385E-17)(minimum use of three times a day) after 1 week of product use.

After 1 week of use, subjective Self-Perception Assessments of pain indicated subjects experienced less frequency of pain, experienced less pain upon waking and at the end of the day. Eighty-one percent (81%) of subjects stated they noticed an improvement in pain twenty minutes after using the product (p-value < 0.0001). Seventy-seven percent (77%) of subjects stated they noticed an improvement after using the test product for 7 days (p-value < 0.0001). Subjects generally felt less difficulty in their ability to stand up, stand, and walk/sit with their pain. Additionally, subjects liked how the test product felt, that it was fast absorbing, and that it was easy to apply and comfortable to use.

PCR CORP FINAL REPORT

PROTOCOL

Princeton Consumer Research Study Number: XUMUSE1F

Title: A Study to Evaluate the Efficacy of a Test Product in Alleviating Body and Muscular Pain

Sponsor: Tuuwa, Inc.
235 Germantown Bend Cove
Cordova, TN 38018

Study Center: Princeton Consumer Research
Baypoint Commerce Center
9600 Koger Blvd N, Suite 120
St. Petersburg, FL 33702

Version: Final

Date: 05 December 2019

Confidentiality Statement:

This confidential document is the property of Princeton Consumer Research and Tuuwa, Inc. No information contained herein may be disclosed without the prior written approval of Princeton Consumer Research or Tuuwa, Inc.

Approval:



Joanne Browne
Principal Investigator
Princeton Consumer Research

12/9/2019
Date



Mark Xu
Project Coordinator
Tuuwa, Inc.

12/7/19
Date

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APPENDIX 1: INGREDIENT LISTING

1. PROTOCOL SUMMARY

Title:	A Study to Evaluate the Efficacy of a Test Product in Alleviating Body and Muscle Pain
Study design:	Single center, study utilizing self-perception questionnaires (SPQs), subject diaries, and MD interviews
Test device:	1. Tuuwa Relief Oil with Herbal Boost (marketed product)
Study Method:	Subjects will report to the testing facility for Visit 1 at which time Informed Consent will be obtained and Inclusion/Exclusion criteria will be reviewed to determine eligibility for participation on the study. Qualified subjects will apply the test product onsite for the first application. A pre-use pain scale score will be completed prior to application as well as a Self-Perception Questionnaire (SPQ) 20 minutes (\pm 5 mins) post first application. The subject will then be issued the test product, a subject diary, and test product instructions. Subjects will be instructed to use the product for one week as instructed for back, neck, knee, shoulder, joint, and exercise-induced pain. Subjects will be asked to complete a diary to document use of the test product and to assess their pain after use. After completion of the usage period, subjects will return to the testing facility to complete a Self-Perception Questionnaire (SPQ) and be interviewed by a medical professional.
Duration of study:	Total duration of study is 1 week.
Number of subjects:	Fifty-five (55) subjects will be enrolled onto the study to complete with fifty (50).
Types of subjects:	Healthy male and female subjects, 21 and older who have moderate to severe body pain.
Estimated start date:	12 December 2019
Estimated stop date:	19 December 2019
Study location:	Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd N., Suite 120 St. Petersburg, FL 33702

2. KEY STUDY PERSONNEL AND RESPONSIBILITIES

Key Personnel	General Responsibilities
Principal Investigator (PI) Joanne Browne Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300	The Principal Investigator (PI) is responsible for ensuring sufficient resources are available to conduct the study and is responsible for the study design and conduct, subject safety, review of the study protocol and study report.
Study Supervisor (SS) Cassie Nesbit Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300	The Study Supervisor (SS) will be responsible for the conduct of the study on a daily basis.
Project Manager (PM) Angela Brooke, MS Princeton Consumer Research Baypoint Commerce Center 9600 Koger Blvd N., Suite 120 St. Petersburg, FL 33702 Tel: 727-576-7300	The Project Manager will be the primary point of contact and will represent the site (Princeton Consumer Research) for this study.
Project Coordinator (PC) Mark Xu XU Wellness Center 235 Germantown Bend Cove Cordova, TN 38018 Tel: 901-218-7688 Email: info@xu.com	The Project Coordinator (PC) is the primary point of contact on behalf of the Sponsor of this study and will represent the Sponsor of this study (XU Inc.).

3. STUDY FLOW CHART

Study Day	0	7
Visit	1	2
Informed Consent	✓	
Demographics	✓	
Inclusion/Exclusion Criteria	✓	
Issuance of Test Product, Instructions, & Diary	✓	
Adverse Event Review		✓
Collection of Test Product & Diary		✓
Self-Perception Questionnaires (SPQ)	✓*	✓
Medical Professional Interview	✓	✓

* Immediately and 20 Minutes post first use

4. OBJECTIVE/RATIONALE

The objective of this study is to assess the efficacy of one test product to alleviate moderate to severe self-assessed body and muscular pain utilizing self-perception questionnaires (SPQ), subject diaries, and medical professional interview.

5. STUDY DESIGN

This study will be conducted at a single testing facility and all subjects will test the test product over a one-week period. Subjects will be instructed to apply the test article to their designated pain areas as instructed. Subjects will complete a Self-Perception Questionnaire (SPQ) before the first application onsite, 20 minutes (\pm 5 mins) after first application, and at the final visit. A medical professional will review the SPQs with the subject to help with pain assessments.

It is the responsibility of the Sponsor to determine the testing and study designs required for submission to entities such as the Home Shopping Network, QVC, etc.

6. SELECTION OF SUBJECTS

6.1 SCREENING

An adequate number of subjects will be screened to ensure approximately 55 subjects will be enrolled onto the study so at least 50 subjects will complete the study. Subjects must satisfy the following inclusion and exclusion criteria and accept the study prohibitions and restrictions to be enrolled onto the study.

6.2 INCLUSION CRITERIA

- a. Healthy male or female, 21 and older;
- b. Experiences frequent moderate to severe (score of 4 to 10 on pain scale) body and muscle pain located in at least one of the following

areas: back (upper, mid and lower), neck, knees, or shoulder areas (joint, rotator cuff) as well as exercise-induced pain (self-assessed);

- c. Signed Informed Consent;
- d. Subject is willing to use the test product as instructed and complete the subject diary daily.

6.3 EXCLUSION CRITERIA

- a. Female subject is pregnant (self-reported), nursing, or planning to become pregnant;
- b. Skin disease such as psoriasis, eczema, rosacea, etc.;
- c. Skin condition such as sunburn or open wound in the treatment area(s);
- d. Recent, within 3 months, surgery, stitches or incisions to the potential treatment areas;
- e. Insulin-dependent diabetes;
- f. Subjects who regularly use OTC or prescription pain medications (daily) or are unable to refrain from using their pain medication for one week while on the study;
- g. Medical conditions or medications, which in the opinion of the Investigator, may affect the safety of the subject or confound the results of the study.

6.4 PROHIBITIONS AND RESTRICTIONS

- a. Willing not to modify typical physical activities for the duration of the study.
- b. Willing to not follow study instructions and complete the subject diary over the one-week at home use period.
- c. Willing to refrain from using OTC or prescription pain medication while participating in the study.

7. SUBJECT WITHDRAWAL

The participation of a subject in this study may be discontinued for any of the following reasons:

- the subject wishes to withdraw from study participation;
- if, in the opinion of the Investigator, it is in the best interest of the subject;
- suspected adverse effects from the test device;
- inter-current illness;
- violation of the prohibitions and restrictions (Section 6.4);
- development of an exclusion criteria (Section 6.3).

Subjects are free to withdraw at any time and need not give a reason, however, every reasonable attempt will be made to ascertain such reasons. The data for those subjects who are withdrawn will be included in the final clinical report but may be excluded from final data analysis.

Subjects will not be followed up with after their withdrawal from the study, except in the case of a serious adverse event or study-related adverse event. Withdrawn subjects will not be replaced.

8. METHOD

8.1 TEST PRODUCT

A sufficient quantity of the following test article will be supplied by the Sponsor labelled as follows:

1. Tuuwa Relief Oil with Herbal Boost (marketed product)

The test article will be used as supplied by the Sponsor.

The Sponsor has provided the ingredient listing for the test articles (Appendix 1) and certifies that the Sponsor's test articles supplied to PCR Corp. for the clinical trial has been manufactured/formulated with ingredients that are safe and suitable for the products' stated purposes.

The study staff will provide test product instructions to the subject as indicated below:

1. Use the oil on the troubled (pain) areas and lymph nodes and massage in until fully absorbed as many times as needed, but a minimum of 3 times a day.
2. Use the test article as a body oil the first thing in the morning and the last thing in the evening.
3. Use the test article before and after your workouts.
4. If you have a massage, have the massage therapist use the test article in place of their massage oil.

It is the responsibility of the Sponsor to determine, for each batch of the test article, the identity, strength, purity, composition and other characteristics which appropriately define the test article, before its use in the study. The determination of its stability and documentation of methods of synthesis or derivation are also the Sponsor's responsibility.

It is the responsibility of the Sponsor that the test article meets all necessary transport regulations, particularly those regulations involving the carriage of hazardous goods and the import/export of goods or equipment, and that any costs including tax/duty are fully met by the Sponsor prior to receipt of the test article at PCR CORP. No liability with regard to safe receipt or costs involved in the carriage of goods or equipment to any PCR CORP site will be accepted.

After the completion of the study, any remaining used and unused test article will be disposed of 28 days after the completion of the study, unless requested otherwise by the Sponsor. Sponsors requesting the return of products will be liable for any costs incurred.

8.2 STUDY PROCEDURE

Visit 1

Potential study participants will report to the testing facility where informed consent will be obtained, and study eligibility will be determined. Subjects will meet with the medical professional who will assist with gathering information on the location and severity of the subject's pain from review of the Pre-Use Self-Perception Questionnaire. Qualified subjects will be enrolled onto the study and will apply the test article on site. Immediately before first application and 20 minutes (\pm 5 minutes) following first application, the subject will complete a SPQ. The subject will be provided with the test product, subject diary, and test product instructions.

Subjects will be instructed to use the test product for one week (7 days) on the areas of their body where they experience pain at least three times per day. Subjects will be given a diary to record use of the test product and to assess their pain one hour after usage of the test product.

Visit 2

Subjects will return to the test facility after completing the 7-day use period. Subjects will bring the test product and diary to visit 2. The usage diary and daily pain assessment rating will be reviewed, and the test product will be collected and reviewed for compliance. Adverse events will be recorded as applicable. A Post-Use Self-Perception Questionnaire (SPQ) will be completed by the subjects regarding the test product and their level of pain during the use period and reviewed by the study staff. The MD will complete a similar interview with each subject as described at Visit 1. At the conclusion of this visit, the subject's participation in the study will be complete.

8.3 SELF-PERCEPTION QUESTIONNAIRE

Self-Perception Questionnaires (SPQ) will be provided to the subjects to complete at the site. The SPQs will be collected and reviewed by study staff. The SPQs will be used to gather information on the perceived effectiveness and acceptability of the test product.

9. ANALYSIS OF DATA

There is no statistical analysis performed on this study. The data collected are the responses supplied by the subjects on the Self-Perception Questionnaires (SPQ) collected and completed during the study. These SPQ and pain rating results will be analyzed per subject to determine the efficacy of the test product on their self-assessed moderate to severe pain. The results will aid the sponsor in determining the efficacy and acceptability of their test product.

A summary of the information collected on the diaries will be listed in the report. This summary will list the use of the product and the assessed pain after usage. No statistical analysis will be performed. There is no formal sample size calculation for

this study. However, historical data shows that the responses from approximately 50 subjects is considered sufficient to be able to assess responses from SPQs.

10. ADVERSE EVENTS

An adverse event is anything untoward which happens to a subject during a study, whether or not it is related to the administration of the test article.

An adverse reaction to the test article is an adverse event occurring after the administration of the test article which may be causally related to the test article. Possible reactions include redness, scaling/dryness, burning, and/or stinging of the skin at the application site as well as a skin rash.

10.1 CLASSIFICATION

An adverse event is Non-Serious (sub-classified as Mild, Moderate or Severe) unless it falls into one or more of the following categories when it is classified as Serious.

The event:

- results in death;
- is life threatening;
- requires in-patient hospitalization;
- results in persistent or significant disability/incapacitation;
- is a congenital anomaly/birth defect.

Maximum intensity of Non-Serious adverse events should be assigned to one of the following categories:

Mild: For example, an adverse event which is easily tolerated by the subject, causing minimal discomfort and not interfering with everyday activities.

Moderate: For example, an adverse event which is sufficiently discomforting and interferes with normal everyday activities.

Severe: For example, an adverse event which prevents normal everyday activities.

10.2 REPORTING OF ADVERSE EVENTS/ SERIOUS ADVERSE EVENTS

In the event of a SERIOUS adverse event/adverse device effect (SAE), the type, onset, severity, duration and outcome will be recorded on a Serious Adverse Event Form and the Sponsor will be notified within one working day, with a written report following within three working days. The significance of the event will be discussed between the Principal Investigator and the Sponsor, but the Principal Investigator reserves the right to withhold further administration pending further information and discussion. The subject's General Practitioner may also be informed as soon as it is reasonably practicable to do so.

- Non-serious adverse events (AE) will be reported to the Sponsor in the Clinical Report at the conclusion of the study.

11. PREMATURE SUSPENSION OR TERMINATION OF THE STUDY

This study may be prematurely suspended or terminated by Princeton Consumer Research or the Sponsor. In all cases of premature suspension or termination, Princeton Consumer Research will promptly inform all study subjects and will provide appropriate follow-up.

If the study is prematurely suspended or terminated by Princeton Consumer Research without the prior agreement of the Sponsor, Princeton Consumer Research will provide the Sponsor with a detailed written explanation of the termination or suspension. Termination will only occur should, in the opinion of the Investigator, an immediate danger to subject health be present.

12. STUDY ETHICS

12.1 AMENDMENTS TO THE PROTOCOL

Proposed changes or additions to the authorized protocol will be subject to approval by the Project Manager and the Sponsor before implementation, except and insofar as Princeton Consumer Research reserves the right to make unilateral departure from the protocol to eliminate an apparent immediate hazard to subject health.

12.2 DECLARATION OF HELSINKI

The study will conform to the requirements of the 1964 Declaration of Helsinki and its subsequent amendments.¹

12.3 SUBJECT CONSENT

Subjects will be informed of the nature, purpose and known risk of the study both orally and in writing and will give their written informed consent before participating in the study. Subjects will be advised that they are free to withdraw from the study at any time without being obliged to give a reason. They will be compensated by PCR for their time and inconvenience.

12.4 INDEMNITY PROVISION

The Sponsor shall be responsible, without regard to legal liability, and shall indemnify Princeton Consumer Research, or any of their respective officers or employees in the event of claims for compensation from subjects suffering injury or other deterioration in health or well-being as a result of participation in this study, except and insofar as such claims arise as a result of any negligent act or omission on the part of Princeton Consumer Research employees or any persons undertaking or involved in the study by arrangement with Princeton Consumer Research.

13. QUALITY ASSURANCE

The study will be carried out according to applicable ICH Guidelines on Good Clinical Practice, 1996² guidelines. The draft report will be peer-reviewed for accuracy and completeness of presentation. Additionally, the study may be subject to the following Quality Assurance procedures:

- Review of protocol and protocol amendments for completeness, clarity and adequacy.
- Inspection and/or audit of critical phases of study conduct for compliance with protocol and Princeton Consumer Research Corp. procedures and guidelines.

The Princeton Consumer Research Quality Assurance Manager, will inform Princeton Consumer Research management of any findings that may affect the integrity of the study.

14. REPORTING

14.1 INTERIM REPORTS

Any unexpected findings during the study will be reported to the Project Coordinator as soon as practicable. A draft report will be sent to the Sponsor on the agreed upon time lines. With the exception of the dated signature of scientists and other professional personnel, the draft report will contain all information as will be included in the final report. Comments made by the Sponsor may be incorporated into the draft report, after which it will be issued as the final report.

14.2 CORRECTIONS OR ADDITIONS TO THE FINAL REPORT

Corrections or additions to the authorized version of the final clinical report will be made in the form of an amendment. This amendment will clearly identify the part of the final clinical report that is being added to or revised and will be signed and dated by the Principal Investigator after review and acceptance by the QA department.

15. REFERENCES

1. World Medical Association (2013). "Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects". *JAMA* 310 (20): 2191–2194. doi:10.1001/jama.2013.281053
2. International Conference on Harmonization of Technical Requirements for the Registration of Pharmaceuticals for Human Use. Note for Guidance on Good Clinical Practice, Consolidated Guideline. Step 4, Consolidated Guideline, 1/5/96. CPMP/ICH/135/9

Tension Relief Oil Ingredient Listing

Prunus Armeniaca Kernel Oil (Apricot) -
Vitis Vinifera Seed Oil (Grape)
Angelica Dahurica Extract
Angelica Japonica Extract
Commiphora Myrrha
Angelica Polymorpha Sinensis Root Extract
Saposhnikovia Divaricata Root Extract
Carthamus Tinctorius Oleosomes (Safflower)
Rheum Palmatum Root
Eucalyptus Globulus Leaf Oil
Vetivera Zizanoides Root Oil

Subject #	Age	Gender	Race	Pain Score
1	65	Female	Caucasian	9
2	53	Male	Caucasian	7
3	59	Female	African American	7
4	54	Male	Caucasian	5
5	55	Male	African American	9
6	52	Female	Caucasian	6
7	64	Female	Caucasian	8
8	61	Female	African American	10
9	53	Female	Caucasian	9
10	69	Male	Caucasian	4
11	63	Female	Caucasian	7
12	66	Female	Caucasian	4
13	33	Female	African American	7
14	46	Female	Caucasian	7
15	56	Male	African American	8
16	30	Female	African American	7
17	67	Male	African American	8
18	32	Female	Caucasian	7
19	64	Female	Caucasian	5
20	26	Female	Caucasian	8
21	69	Female	African American	7
22	47	Female	Caucasian	8
23	59	Female	African American	8
24	60	Female	Caucasian	8
25	56	Female	Caucasian	9
26	65	Male	Caucasian	7
27	56	Female	Caucasian	8
28	64	Male	African American	7
29	59	Male	Caucasian	8
30	42	Male	Asian	6
31	61	Male	Caucasian	7
32	58	Female	Caucasian	7
33	31	Female	Caucasian	7
34	53	Female	Caucasian	8
35	49	Male	Caucasian	7
36	29	Female	African American	7
37	66	Female	Caucasian	7
38	50	Female	African American	9
39	35	Female	African American	8
40	52	Male	Caucasian	8

Subject #	Age	Gender	Race	Pain Score
41	55	Female	Caucasian	9
42	59	Female	Caucasian	7
43	64	Male	African American	8
44	63	Female	Caucasian	8
45	55	Male	Caucasian	8
46	61	Male	African American	9
47	73	Female	Caucasian	8
48	59	Female	Caucasian	8
49	52	Female	Caucasian	6
50	63	Male	African American	5
51	56	Female	Caucasian	7
52	28	Female	Other	7
53	43	Female	Caucasian	6

Pre-Use Pain Demographics

Sub #	D1. Do you experience a lot of stress in your life?	D2. Do you do physical work?	D3. do you play any sports?	D4. Do you have any activities in your everyday life that cause you pain?	D5. Do you have blood circulation problems?	D6. Do you have any inflammatory problems?	D6. If yes, where?
1	No	Yes	No	Yes	No	No	
2	No	Yes	No	Yes	No	No	
3	No	Yes	No	Yes	No	No	
4	No	Yes	No	Yes	No	Yes	
5	No	Yes	No	Yes	No	Yes	Knees, Back
6	Yes	Yes	No	Yes	No	No	
7	Yes	No	No	Yes	No	No	
8	No	No	No	Yes	Yes	Yes	
9	No	Yes	No	Yes	No	Yes	In both knees, more on the right knee
10	No	No	No	Yes	No	No	Shoulders
11	Yes	Yes	No	Yes	No	No	
12	No	No	No	Yes	No	No	Neck and Left Shoulder
13	No	Yes	No	Yes	No	No	
14	No	No	No	Yes	No	No	
15	No	No	No	Yes	No	No	
16	Yes	No	No	No	No	No	
17	Yes	No	No	Yes	No	No	
18	Yes	No	Yes	Yes	No	Yes	Plantar Fasciitis in right foot
19	Yes	Yes	No	Yes	No	No	
20	Yes	Yes	No	Yes	No	No	
21	No	Yes	Yes	Yes	No	No	Shoulders Area
22	Yes	Yes	No	Yes	No	Yes	Knees and Hips
23	No	Yes	No	Yes	No	Yes	Left Knee
24	No	Yes	No	Yes	No	No	

Sub #	D1. Do you experience a lot of stress in your life?	D2. Do you do physical work?	D3. do you play any sports?	D4. Do you have any activities in your everyday life that cause you pain?	D5. Do you have blood circulation problems?	D6. Do you have any inflammatory problems?	D6. If yes, where?
25	Yes	Yes	No	No	No	No	
26	Yes	Yes	Yes	Yes	No	Yes	Knees, Hips, Shoulders, Elbows, Wrists and Hands
27	No	No	No	Yes	No	No	
28	No	Yes	No	Yes	No	Yes	Knees
29	No	No	No	No	No	No	
30	Yes	Yes	Yes	Yes	No	No	
31	Yes	No	No	Yes	No	No	
32	No	No	No	Yes	No	No	
33	No	No	No	Yes	No	No	
34	Yes	No	No	Yes	No	Yes	Lower Back, Arthritis Throughout Back
35	Yes	No	No	Yes	Yes	Yes	Elbows
36	No	Yes	No	Yes	No	No	
37	Yes	No	No	No	No	No	
38	No	No	No	Yes	No	Yes	Knees swell sometimes
39	No	Yes	Yes	Yes	No	No	
40	No	Yes	Yes	Yes	No	No	
41	No	No	Yes	Yes	No	No	
42	No	No	No	No	No	No	
43	No	No	Yes	No	No	No	
44	Yes	Yes	No	Yes	No	No	
45	Yes	Yes	No	Yes	No	Yes	Neck, Back, Knees, Shoulders, Feet
46	No	No	No	Yes	No	No	
47	No	Yes	No	Yes	No	No	
48	Yes	Yes	Yes	Yes	No	Yes	Feet
49	Yes	No	Yes	Yes	No	No	
50	No	Yes	No	Yes	No	Yes	Ankles

Sub #	D1. Do you experience a lot of stress in your life?	D2. Do you do physical work?	D3. do you play any sports?	D4. Do you have any activities in your everyday life that cause you pain?	D5. Do you have blood circulation problems?	D4. Do you have any inflammatory problems?	D6. If yes, where?
51	Yes	No	No	Yes	No	Yes	Lower Back- Arthritis
52	Yes	No	No	Yes	No	No	
53	Yes	Yes	No	Yes	No	No	

Sub #	D7. What type of pain do you consider you have? (7.1-Articular, 7.2-Muscular, 7.3-Arthritic, 7.4-Headache, 7.5-Sciatic, 7.6-Other)	D8. What is the reason for your pain? (8.1-Cold, 8.2-Tiredness, 8.3-Varicose Veins, 8.4-Stress, 8.5-Age, 8.6-Muscle Spasms, 8.7-Sprain, 8.8-Luxation, 8.9-Other)	D9. Which part of your body do you feel pain in? (9.1-Back, 9.2-Shoulders, 9.3-Elbows, 9.4-Hip, 9.5-Foot, 9.6-Neck, 9.7-Wrist, 9.8-Head, 9.9-Legs, 9.10-Arms, 9.11-Knees, 9.12-Hands, 9.13-Ankle, 9.14-Other)	D10. What is the frequency of your pain?	D11. How long do you think you have been experiencing the pain?	D12. Do you feel that your pain affects your everyday life such as personal relationships, professional life?
1	3	5.8	2.11	Constant	1999	Yes
2	2.3	1.5.8	11	Constant	Years	Yes
3	2.3	5.6.7	2.5.11	Constant	Years	Yes
4	2.4	5.6	1.2.5.6.7.8.11.	Constant	6 Years	Yes
5	2	6	11	Constant	6 Years	Yes
6	2.3.6	1.6	4.9.11	Constant	5 Years	Yes
7	2.3	6.9	3.6.14	Constant	2 Years	Yes
8	3	1	2.5.6.9.12.13	Constant	Years	Yes
9	2.	6	4.11	Constant	Years	Yes
10	1.2.3	5.9: Movement	2.11	Constant	6 Months	Yes
11	2.3	1.2.4.5.6.9: Bike	11.12	Frequent	Years	No
12	2.3.5	6	2.6	Constant	1 Years	No
13	2	6.7	1.2	Constant	1.5 Years	Yes
14	1.2.3.5	9: Arthritis, Inflammation	4	Constant	8 Years	Yes
15	2	2.6	2	Frequent	Months	NO

Sub #	D7. What type of pain do you consider you have? (7.1-Articular, 7.2-Muscular, 7.3-Arthritis, 7.4-Headache, 7.5-Sciatic, 7.6-Other)	D8. What is the reason for your pain? (8.1-Cold, 8.2-Tiredness, 8.3-Varicose Veins, 8.4-Stress, 8.5-Age, 8.6-Muscle Spasms, 8.7-Sprain, 8.8-Luxation, 8.9-Other)	D9. Which part of your body do you feel pain in? (9.1-Back, 9.2-Shoulders, 9.3-Elbows, 9.4-Hip, 9.5-Foot, 9.6-Neck, 9.7-Waist, 9.8-Head, 9.9-Legs, 9.10-Arms, 9.11-Knees, 9.12-Hands, 9.13-Ankle, 9.14-Other)	D10. What is the Frequency of your pain?	D11. How long do you think you have been experiencing the pain?	D12. Do you feel that your pain affects your everyday life such as personal relationships, professional life?
16	2	2, 6	1, 12	Constant	1 Year	Yes
17	2, 3	1, 5, 6	1, 9, 11	Constant	All your life	Yes
18	2, 4	9: Unsure	5	Constant	7 Months	Yes
19	2, 3	5, 6	9, 11	Frequent	4 Years	No
20	2, 3, 4	1, 2, 4, 6	1, 2, 7, 11, 13	Constant	10-13 Years	Yes
21	2	6	2	Frequent	Years	No
22	2, 3, 5	4, 5, 6	4, 11	Constant	30+ Years	Yes
23	2, 3	6, 7	11	Constant	Months	Yes
24	2, 3	6	9, 11, 12	Frequent	Months	Yes
25	2, 3	4, 5, 6, 7	2, 9	Constant	3 Months	No
26	2, 3	1, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13	Constant	20 Years	Yes
27	3, 6- Damaged Patella	1, 3, 5, 9: Knee Damage/Weight	4, 9, 11, 12	Constant	20 Years	Yes
28	2, 3	5	1, 4, 7, 11	Constant	20 Years	Yes
29	2, 6- Lower Back	5	1, 2	Constant	5 Years	No
30	2	2, 5	1	Frequent	All your life	Yes
31	2, 3, 5	2, 5, 6	1, 6, 10	Frequent	16 Years	Yes
32	3	1, 5, 6	9	Frequent	6 Months	Yes
33	2	6, 9- Car Accident 2014	1	Constant	5 Years	Yes
34	1, 2, 3, 5	9- Slip and fell	1, 2, 4, 6, 9, 12	Constant	Years	Yes
35	1, 4, 6- Foot	2, 5, 7,	3, 5, 8,	Constant	Years	No
36	2	9- Working out	9	Constant	Months	No
37	2	4	2, 10, 11	Constant	4 Months	Yes
38	1, 2, 3, 4, 5	1, 5, 6	1, 2, 4, 6, 8, 9, 11	Constant	3 to 4 years	Yes
39	2, 3, 6- Fingers/Toes	1, 2, 5, 6	1, 4, 5, 9, 13	Constant	5 Years	Yes

Sub #	D7. What type of pain do you consider you have? (7.1-Articular, 7.2-Muscular, 7.3-Arthralgia, 7.4-Headache, 7.5-Sciatic, 7.6-Other)	D8. What is the reason for your pain? (8.1-Cold, 8.2-Tiredness, 8.3-Varicose Veins, 8.4-Stress, 8.5-Age, 8.6-Muscle Spasms, 8.7-Sprain, 8.8-Luxation, 8.9-Other)	D9. Which part of your body do you feel pain in? (9.1-Back, 9.2-Shoulders, 9.3-Elbows, 9.4-Hip, 9.5-Foot, 9.6-Neck, 9.7-Waist, 9.8-Head, 9.9-Legs, 9.10-Arms, 9.11-Knees, 9.12-Hands, 9.13-Ankle, 9.14-Other)	D10. What is the frequency of your pain?	D11. How long do you think you have been experiencing the pain?	D12. Do you feel that your pain affects your everyday life such as personal relationships, professional life?
40	3, 4	5, 9- Played Sports, a lot of bending	8, 11	Frequent	Years	Yes
41	3, 4	9- Car Accident	6, 8	Constant	20 Years	Yes
42	2, 3	9- Accident	1, 6	Frequent	Years	Yes
43	1, 2	5	1, 11	Constant	Months	Yes
44	2	4, 6	2, 4, 6	Constant	6- 8 Months	No
45	2, 3, 5	4, 5, 7	1, 2, 5, 6, 11	Constant	Years	Yes
46	3, 6- Lower Back	9- Inflammation	1, 11	Frequent	Years	Yes
47	2	7	2, 10	Constant	1 Year	No
48	2, 3	1, 2, 5, 6	1, 5	Constant	Years	No
49	2	6	11	Frequent	1 Month	No
50	2	6	13	Frequent	Years	Yes
51	2, 3	4, 5	1, 2	Constant	10 Years	Yes
52	1, 2, 4	1, 2, 4, 9- Previous Injury	1, 4, 6, 8	Frequent	16 Years	No
53	1, 2	4, 5, 9- Sports from younger age	11	Frequent	2 Years	Yes

Sub #	D20. On a 0 - 10 scale, please rate how much you would like to change your situation and eliminate the pain you currently feel?	D14. Have you ever used any pain-relieving treatments such as creams/ointments/Oil/Massage/Pills?	D14- If yes, did it work?	D15. How much money do you spend on pain relief treatments (creams, ointments, oil, massage, pills) every month?
1	10	Yes	No	10
2	8	Yes	No	0
3	9	Yes	No	20
4	6	Yes	Yes	20
5	7	Yes	No	60
6	10	Yes	Yes	20
7	10	Yes	Yes	13
8	10	Yes	No	10
9	10	Yes	Sometimes	20
10	10	Yes	No	0
11	7	Yes	Yes	10
12	10	Yes	Yes	5
13	10	Yes	No	.
14	10	Yes	Yes	5
15	9	Yes	No	.
16	7	No		0
17	10	No		
18	10	Yes	No	10
19	10	Yes	Yes	.
20	9	Yes	No	20
21	10	Yes	N/A	120
22	7	Yes	No	28
23	9	Yes	No	15

Sub #	D20. On a 0-10 scale, please rate how much you would like to change your situation and eliminate the pain you currently feel?	D14. Have you ever used any pain-relieving treatments such as creams/ointments/Oil/Massages/Pills?	D14- If yes, did it work?	D15. How much money do you spend on pain relief treatments (creams, ointments, oil, massage, pills) every month?
24	10	Yes	Yes	
25	10	Yes	Yes	5
26	10	Yes	No	0
27	10	Yes	No	0
28	10	Yes	Yes	0
29	8	Yes	Yes	20
30	10	No	No	0
31	10	Yes	No	90
32	10	Yes	Yes	5
33	10	Yes	Yes	15
34	10	Yes	Yes	23
35	7	No		0
36	10	Yes	Yes	5
37	10	No		0
38	10	Yes	Yes	38
39	10	Yes	Yes	10
40	9	Yes	No	15
41	10	Yes	No	0
42	7	Yes	Yes	50
43	8	Yes	No	20
44	10	Yes	No	0
45	10	Yes	Yes	15

Sub #	D20. On a 0-10 scale, please rate how much you would like to change your situation and eliminate the pain you currently feel?	D14. Have you ever used any pain-relieving treatments such as creams/ointments/Oil/ Massages/Fills?	D14- If yes, did it work?	D15. How much money do you spend on pain relief treatments(creams, ointments, oil, massage, pills) every month?
46	10	Yes	No	13
47	10	Yes	Yes	40
48	10	Yes	No	10
49	6	Yes	Yes	5
50	10	Yes	No	5
51	8	Yes	Yes	15
52	10	Yes	Yes	10
53	10	Yes	Yes	10

Pre-Use Pain Perception

Sub #	Q16. On a 0 to 10 scale, please rate your pain intensity when you wake in the morning	Q17. On a 0 to 10 scale, please rate how difficult it is to stand up because of pain	Q18. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	Q19. On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	Q20. On a 0 to 10 scale, please rate your pain intensity at the end of your day	Q1. On a scale of 0 to 10, please rate your pain intensity before using the product on your pain area
1	9	8	10	9	9	9
2	5	7	8	7	7	7
3	7	6	8	8	8	7
4	4	6	9	3	8	5
5	6	8	9	6	9	9
6	7	6	9	7	8	6
7	9	7	8	9	9	8
8	10	0	5	10	10	10

APPENDIX 3: STUDY DATA

21 January 2020

Sub #	Q16. On a 0 to 10 scale, please rate your pain intensity when you wake in the morning	Q17. On a 0 to 10 scale, please rate how difficult it is you to stand up because of pain	Q18. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	Q19. On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	Q20. On a 0 to 10 scale, please rate your pain intensity at the end of your day	Q1. On a scale of 0 to 10, please rate your pain intensity before using the product on your pain area
9	9	8	9	10	10	9
10	4	4	4	3	4	4
11	4	5	8	10	8	7
12	3	0	6	6	5	4
13	7	8	8	9	8	7
14	5	5	6	8	7	7
15	7	8	8	8	9	8
16	7	7	7	7	8	7
17	10	8	6	7	8	7
18	8	6	7	6	6	7
19	5	4	6	7	9	5
20	7	4	9	8	9	8
21	9	7	7	7	8	7
22	8	8	10	5	8	8
23	7	8	9	8	7	8
24	5	5	5	5	9	8
25	6	0	5	5	8	9
26	7	7	8	8	7	7
27	7	7	9	9	9	8
28	9	8	10	9	10	7
29	8	5	3	3	8	8
30	5	6	7	5	4	6
31	7	5	8	8	8	7
32	7	4	8	7	8	7
33	2	5	7	8	10	7
34	7	10	10	8	10	8
35	8	7	9	9	8	7

APPENDIX 3: STUDY DATA

21 January 2020

Sub #	Q14. On a 0 to 10 scale, please rate your pain intensity when you wake in the morning	Q17. On a 0 to 10 scale, please rate how difficult it is for you to stand up because of pain	Q18. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	Q19. On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	Q20. On a 0 to 10 scale, please rate your pain intensity at the end of your day	Q1. On a scale of 0 to 10, please rate your pain intensity before using the product on your pain area
36	10	9	8	9	5	8
37	0	0	0	0	9	7
38	9	9	9	9	7	9
39	8	8	9	9	10	8
40	8	8	9	8	9	8
41	9	8	8	9	9	9
42	7	3	5	5	7	7
43	8	8	5	6	6	8
44	4	4	9	9	8	8
45	8	6	5	6	8	8
46	8	8	10	9	8	9
47	7	0	0	0	8	8
48	8	5	9	9	9	8
49	6	6	6	6	7	6
50	3	5	5	6	5	5
51	7	0	3	5	7	7
52	7	4	0	9	9	7
53	7	5	9	9	9	6

20 Minutes Post-First Use Pain Perception

Sub #	Q1. On a scale of 0 to 10, please rate your pain intensity after using the product on your pain area	Q2. On a 0 to 10 scale, please rate the improvement you feel of your pain	Agree/Disagree Q3. I noticed improvement in my pain after using the treatment.
1	6	8	Strongly Agree
2	5	5	Neither/Nor
3	7	3	Disagree
4	3	2	Agree
5	9	2	Disagree
6	4	5	Agree
7	7	1	Agree
8	2	8	Agree
9	7	2	Agree
10	4	1	Agree
11	6	1	Agree
12	3	1	Agree
13	3	4	Strongly Agree
14	5	2	Agree
15	6	2	Agree
16	6	1	Agree
17	6	1	Agree
18	6	1	Agree
19	2	3	Agree
20	5	3	Strongly Agree
21	6	1	Agree
22	8	0	Disagree
23	3	5	Strongly Agree
24	1	7	Strongly Agree

Sub #	Q1. On a scale of 0 to 10, please rate your pain intensity after using the product on your pain area	Q2. On a 0 to 10 scale, please rate the improvement you feel of your pain	Agree/Disagree Q3. I noticed improvement in my pain after using the treatment.
25	0	9	Strongly Agree
26	7	0	Neither/Nor
27	4	4	Strongly Agree
28	7	0	Neither/Nor
29	5	3	Agree
30	4	2	Strongly Agree
31	2	5	Agree
32	6	1	Agree
33	5	2	Agree
34	8	0	Neither/Nor
35	6	1	Agree
36	5	3	Agree
37	7	0	Disagree
38	6	3	Agree
39	5	3	Strongly Agree
40	8	0	Neither/Nor
41	7	2	Agree
42	5	2	Strongly Agree
43	6	2	Agree
44	4	4	Agree
45	7	1	Neither/Nor
46	4	5	Strongly Agree
47	5	3	Agree
48	4	4	Strongly Agree
49	5	1	Agree
50	4	1	Agree

Sub #	Q1. On a scale of 0 to 10, please rate your pain intensity after using the product on your pain area	Q2. On a 0 to 10 scale, please rate the improvement you feel of your pain	Q3. What is the frequency of your pain now as compared to before you started using the product?	Q4. On a 0 to 10 scale, please rate your pain intensity when you wake in the morning	Q5. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	Q6. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain
51	5	2	Constant	2	3	8
52	4	3	Constant	6	7	7
53	4	2	Frequent	5	5	5

After 1 Week of Use Pain Perception

Sub #	Q1. On a 0 to 10 scale, please rate the improvement in pain intensity after using the product on the area you were experiencing pain	Q2. On a 0 to 10 scale, please rate your degree of pain intensity after using the product on the area you were experiencing pain	Q3. What is the frequency of your pain now as compared to before you started using the product?	Q4. On a 0 to 10 scale, please rate your pain intensity when you wake in the morning	Q5. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain	Q6. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain
1	7	3	Constant	2	3	8
2	6	6	Constant	6	7	7
3	5	6	Constant	5	5	5
4	2	3	Frequent	3	0	0
5	7	6	Temporary	8	8	7
6	8	3	Constant	7	5	5
7	3	6	Constant	7	7	6
8	7	4	Temporary	4	1	1
9	5	5	Frequent	6	5	5
10	1	3	No Pain	3	0	0
11	9	9	No Pain	8	7	7
12	3	3	Frequent	2	0	0

Sub #	Q1. On a 0 to 10 scale, please rate the improvement in pain intensity after using the product on the area you were experiencing pain	Q2. On a 0 to 10 scale, please rate your degree of pain intensity after using the product on the area you were experiencing pain	Q3. What is the frequency of your pain now as compared to before you started using the product?	Q4. On a 0 - 10 scale, please rate your pain intensity when you wake up in the morning	Q5. On a 0 to 10 scale, please rate how difficult it is to stand up because of pain	Q6. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain
13	10	0	Frequent	1	1	1
14	5	2	Frequent	4	3	3
15	2	2	Temporary	2	8	8
16	6	4	Frequent	5	5	5
17	6	7	Frequent	5	0	0
18	3	4	Constant	6	3	3
19	9	1	Temporary	2	0	1
20	9	2	Temporary	2	0	3
21	2	2	Temporary	2	2	2
22	1	7	Constant	9	8	8
23	1	1	No Pain	3	2	2
24	0	2	No Pain	0	0	5
25	10	10	No Pain	0	0	0
26	1	5	Constant	7	6	7
27	4	4	Temporary	4	8	8
28	5	5	Frequent	5	7	8
29	4	4	Constant	6	1	4
30	3	3	No Pain	6	6	6
31	3	3	Temporary	5	3	6
32	8	2	Frequent	8	6	7
33	6	2	Constant	8	5	3
34	10	1	Temporary	10	8	10
35	3	3	Constant	3	7	7
36	10	1	Frequent	8	8	7
37	0	1	Constant	0	0	0

Sub #	Q1. On a 0 to 10 scale, please rate the improvement in pain intensity after using the product on the area you were experiencing pain	Q2. On a 0 to 10 scale, please rate your degree of pain intensity after using the product on the area you were experiencing pain	Q3. What is the frequency of your pain now as compared to before you started using the product?	Q4. On a 0 - 10 scale, please rate your pain intensity when you wake in the morning	Q5. On a 0 to 10 scale, please rate how difficult it is to stand up because of pain	Q6. On a 0 to 10 scale, please rate how difficult it is for you to stand for a long period of time because of pain
38	6	6	Constant	9	9	9
39	4	4	Temporary	5	3	2
40	5	7	Frequent	7	7	6
41	7	7	Frequent	5	4	5
42	9	2	Temporary	3	0	3
43	3	3	Constant	8	6	6
44	3	6	Constant	4	2	4
45	6	6	Constant	7	6	6
46	3	1	Temporary	1	2	3
47	2	4	Constant	6	0	0
48	6	4	Frequent	9	3	6
49	9	2	Temporary	4	0	0
50	4	0	Frequent	2	2	2
51	8	2	Temporary	1	0	2
52	9	3	Temporary	4	3	0
53	4	4	Frequent	6	6	6

Sub #	Q7. On a 0 to 10 scale, please rate how difficult it is for you to walk/ sit for a long period of time because of pain	Q8. On a 0 to 10 scale, please rate your pain intensity at the end of your day	Q9. On a 0 to 10 scale, please rate how much you like the smell of the product	Q10. On a 0 to 10 scale, please rate how much you like the feel of the product	Q11. On a 0 to 10 scale, please rate how easy and fast the product absorbed into the skin	Q12. On a 0 to 10 scale, please rate how comfortable it was to use the product	Q13. I like the smell of the product
1	7	2	1	3	3	4	Strongly Disagree
2	7	7	0	5	5	7	Strongly Disagree
3	5	7	7	8	8	8	Strongly Agree
4	0	6	8	5	4	6	Agree
5	8	9	9	6	6	5	Neither
6	4	6	9	10	10	9	Strongly Agree
7	6	6	2	5	7	10	Strongly Disagree
8	1	4	5	10	8	10	Agree
9	6	7	8	8	8	8	Agree
10	0	2	2	4	6	8	Agree
11	8	3	8	6	7	10	Agree
12	0	4	5	10	8	10	Neither
13	3	1	0	10	10	10	Disagree
14	3	2	6	8	7	9	Agree
15	8	2	5	7	7	7	Strongly Agree
16	5	4	5	6	5	6	Neither
17	8	7	3	8	9	7	Disagree
18	3	6	6	6	5	8	Agree
19	1	1	10	10	10	10	Strongly Agree
20	3	2	6	7	9	8	Agree
21	2	2	5	2	1	1	Agree
22	7	8	0	0	5	5	Strongly Disagree
23	2	2	10	9	9	9	Strongly Agree

Sub #	Q7. On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	Q8. On a 0 to 10 scale, please rate your pain intensity at the end of your day	Q9. On a 0 to 10 scale, please rate how much you like the smell of the product	Q10. On a 0 to 10 scale, please rate how much you like the feel of the product	Q11. On a 0 to 10 scale, please rate how easy and fast the product absorbed into the skin	Q12. On a 0 to 10 scale, please rate how comfortable it was to use the product	Q13. I like the smell of the product
24	5	9	6	10	8	10	Agree
25	0	0	10	10	10	10	Strongly Agree
26	6	6	7	8	8	8	Agree
27	8	8	4	8	8	10	Agree
28	9	9	5	8	8	10	Agree
29	4	4	5	7	4	5	Agree
30	6	3	2	6	10	10	Strongly Agree
31	6	7	0	5	3	4	Disagree
32	8	9	10	10	10	9	Strongly Agree
33	5	3	0	8	8	10	Strongly Disagree
34	10	10	9	7	7	8	Agree
35	0	3	0	7	7	7	Disagree
36	7	2	2	10	10	9	Disagree
37	0	5	3	0	6	6	Neither
38	9	8	6	10	8	10	Agree
39	3	2	0	10	10	10	Strongly Disagree
40	6	7	6	5	7	8	Agree
41	5	7	9	9	9	9	Strongly Agree
42	4	5	7	7	8	9	Agree
43	7	3	10	5	5	7	Disagree
44	4	4	6	6	6	8	Agree
45	6	6	6	7	8	8	Agree
46	4	4	10	10	10	10	Strongly Agree
47	0	6	2	5	10	10	Neither
48	6	9	4	8	8	9	Agree

Sub #	Q7. On a 0 to 10 scale, please rate how difficult it is for you to walk/sit for a long period of time because of pain	Q8. On a 0 to 10 scale, please rate your pain intensity at the end of your day	Q9. On a 0 to 10 scale, please rate how much the smell of the product	Q10. On a 0 to 10 scale, please rate how much you like the feel of the product	Q11. On a 0 to 10 scale, please rate how easy and fast the product absorbed into the skin	Q12. On a 0 to 10 scale, please rate how comfortable it was to use the product	Q13. I like the smell of the product
49	0	2	7	10	9	10	Agree
50	1	1	3	5	6	7	Neither
51	2	2	8	8	8	8	Strongly Agree
52	5	4	3	6	8	10	Disagree
53	2	6	0	4	6	7	Strongly Disagree

Sub #	Q14. I like how the product feels on my skin	Q15. I felt the product was easy to apply to the area where I feel pain	Q16. I felt the product was fast absorbing	Q17. I felt the product was comfortable to use.	Q18. I noticed an improvement in my pain after using the treatment for 7 days.	Q19. I noticed my pain is less frequent now	Q20. I would buy this product.	Q21. I would recommend this product to family and friends.
1	Neither	Neither	Disagree	Disagree	Agree	Agree	Neither	Neither
2	Neither	Agree	Neither	Agree	Disagree	Disagree	Disagree	Disagree
3	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Agree	Agree
4	Neither	Agree	Agree	Agree	Agree	Agree	Neither	Neither
5	Agree	Strongly Agree	Agree	Strongly Agree	Neither	Neither	Neither	Neither
6	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree
7	Neither	Strongly Agree	Disagree	Strongly Agree	Agree	Neither	Agree	Agree
8	Agree	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
9	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree
10	Agree	Agree	Agree	Agree	Neither	Neither	Neither	Neither
11	Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
12	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Disagree	Agree	Agree

Sub #	Q14. I like how the product feels on my skin	Q15. I felt the product was easy to apply to the area where I feel pain	Q16. I felt the product was fast absorbing	Q17. I felt the product was comfortable to use.	Q18. I noticed an improvement in my pain after using the treatment for 7 days.	Q19. I noticed my pain is less frequent now	Q20. I would buy this product.	Q21. I would recommend this product to family and friends.
13	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree
14	Agree	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
15	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Agree	Strongly Agree	Agree	Strongly Agree
16	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree
17	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree
18	Agree	Agree	Neither	Strongly Agree	Agree	Neither	Agree	Agree
19	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
20	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree
21	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree
22	Disagree	Neither	Disagree	Disagree	Strongly Disagree	Strongly Disagree	Disagree	Agree
23	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
24	Agree	Agree	Agree	Agree	Agree	Strongly Agree	Agree	Strongly Agree
25	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
26	Agree	Neither	Agree	Agree	Neither	Neither	Neither	Neither
27	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree
28	Agree	Agree	Agree	Agree	Neither	Neither	Agree	Neither
29	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
30	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
31	Neither	Agree	Neither	Neither	Agree	Neither	Neither	Agree
32	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree
33	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Disagree	Agree	Agree
34	Neither	Strongly Agree	Neither	Agree	Strongly Agree	Neither	Strongly Agree	Strongly Agree
35	Neither	Agree	Agree	Agree	Agree	Agree	Neither	Agree
36	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Neither	Neither	Agree	Agree

Sub #	Q14. I like how the product feels on my skin	Q15. I felt the product was easy to apply to the area where I feel pain	Q16. I felt the product was fast absorbing	Q17. I felt the product was comfortable to use.	Q18. I noticed an improvement in my pain after using the treatment for 7 days.	Q19. I noticed my pain is less frequent now	Q20. I would buy this product.	Q21. I would recommend this product to family and friends.
37	Agree	Agree	Agree	Agree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Strongly Disagree
38	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Agree	Neither	Agree	Strongly Agree
39	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Neither	Agree
40	Agree	Agree	Strongly Agree	Strongly Agree	Agree	Neither	Neither	Agree
41	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Agree	Agree
42	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
43	Agree	Agree	Neither	Strongly Agree	Agree	Agree	Agree	Agree
44	Agree	Agree	Agree	Agree	Neither	Neither	Disagree	Disagree
45	Agree	Agree	Agree	Agree	Neither	Neither	Neither	Neither
46	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree
47	Agree	Agree	Agree	Agree	Neither	Disagree	Disagree	Neither
48	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
49	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree
50	Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
51	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree	Agree	Agree	Strongly Agree
52	Agree	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree
53	Agree	Agree	Strongly Agree	Agree	Neither	Neither	Neither	Neither

One Hour After Use Pain Perception From Diary

Subject #	Day 1 Applic. 1	Day 1 Applic. 2	Day 1 Applic. 3	Day 2 Applic. 1	Day 2 Applic. 2	Day 2 Applic. 3	Day 3 Applic. 1	Day 3 Applic. 2	Day 3 Applic. 3	Day 4 Applic. 1	Day 4 Applic. 2
1	5	4	2	1	2	2	3	2	2	1	2
2	5	6	5	6	7	7	5	5	6	5	6
3	6	6	5	6	6	5	7	6	6	6	6
4	6	5	4	5	4	4	6	5	3	4	4
5	9	9	8	7	9	9	7	8	7	10	10
6	3	3	2	3	3	2	5	4	4	4	4
7	8	8	6	7	8	7	6	5	7	7	6
8	2	2	2	2	2	2	2	2	2	2	2
9	3	3	3	3	3	3	3	4	6	3	3
10	3	3	3	3	3	3	2	2	3	3	2
11	3	3	3	4	3	3	4	4	2	1	0
12	3	3	3	3	3	3	3	3	3	3	3
13	2	1	0	0	0	0	0	0	0	2	0
14	5	4	5	5	4	5	4	4	5	5	4
15	6	6	5	4	4	3	3	2	2	4	4
16	5	5	5	5	5	5	5	5	5	5	5
17	6	6	6	6	6	6	6	6	6	5	5
18	5	6	6	7	6	5	6	5	5	6	5
19	2	2	2	2	2	2	1	1	1	1	1
20	4	3	3	3	2	2	3	2	2	3	3
21	6	5	5	6	5	5	6	5	5	4	4
22	8	8	7	7	7	7	7	7	7	7	7
23	2	2	2	3	3	3	0	0	1	3	3
24	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0
26	6	6	6	6	5	5	5	5	5	5	5
27	4	4	4	3	4	4	3	3	3	3	3

Subject #	Day 1 Applic. 1	Day 1 Applic. 2	Day 1 Applic. 3	Day 2 Applic. 1	Day 2 Applic. 2	Day 2 Applic. 3	Day 3 Applic. 1	Day 3 Applic. 2	Day 3 Applic. 3	Day 4 Applic. 1	Day 4 Applic. 2
28	5	5	5	5	5	5	5	5	5	5	5
29	5	5	5	5	5	5	4	4	4	4	4
30	4	4	4	3	2	2	2	2	2	2	2
31	2	2	2	2	2	2	1	1	2	1	1
32	2	1	0	2	1	2	2	2	1	2	3
33	5	4	3	6	4	3	5	3	1	7	6
34	8	8	8	10	10	10	10	10	10	10	10
35	6	6	6	7	5	5	6	5	5	5	5
36	5	5	5	5	4	5	5	5	5	4	4
37	3	5	5	0	5	2	0	0	3	0	0
38	6	7	6	7	5	5	6	6	6	7	5
39	4	3	2	3	3	2	4	2	0	8	5
40	8	8	8	8	8	8	8	8	8	8	8
41	7	7	6	6	7	7	7	6	6	6	6
42	0	2	0	0	2	1	1	1	2	2	1
43	6	6	5	5	4	3	7	5	4	7	5
44	3	4	3	2	5	4	4	4	5	4	3
45	7	7	7	7	7	7	7	6	6	6	6
46	4	4	2	4	3	4	2	2	2	3	3
47	4	4	3	5	5	6	6	5	6	4	3
48	2	4	4	4	4	3	6	5	5	4	6
49	4	3	3	3	3	4	3	2	2	3	3
50	4	4	3	3	2	1	2	2	1	1	2
51	5	4	3	3	2	2	2	2	2	3	3
52	4	4	4	4	4	5	5	4	4	5	4
53	4	4	4	4	3	3	4	4	3	4	4

Sub #	Day 4 Applic. 3	Day 5 Applic. 1	Day 5 Applic. 2	Day 5 Applic. 3	Day 6 Applic. 1	Day 6 Applic. 2	Day 6 Applic. 3	Day 7 Applic. 1	Day 7 Applic. 2	Day 7 Applic. 3	Mean	St. Deviation
1	2	2	1	1	1	1	2	2	2	2	2	1.00
2	6	5	6	6	6	7	7	7	7	7	6	0.80
3	7	7	7	7	7	6	7	7	6	7	6	0.66
4	3	4	4	3	3	4	6	4	7	4	4	1.12
5	9	9	8	9	6	6	8	6	6	5	8	1.46
6	3	3	2	2	2	2	2	4	3	2	3	0.92
7	8	5	7	7	7	6	8	6	5	5	7	1.07
8	2	2	2	2	2	2	2	2	2	2	2	0.00
9	3	4	4	4	4	4	4	4	4	4	4	0.74
10	2	2	3	2	3	2	3	2	2	2	3	0.51
11	0	2	1	2	2	1	2	1	1	1	2	1.24
12	3	3	3	3	3	3	3	3	3	3	3	0.00
13	0	1	0	0	3	0	0	4	2	0	1	1.19
14	5	3	4	3	2	3	2	2	3	2	4	1.14
15	3	3	3	3	2	2	2	1	1	1	3	1.47
16	5	4	4	4	4	4	4	4	4	4	5	0.51
17	5	5	5	5	5	5	5	5	5	5	5	0.51
18	4	6	6	5	6	6	5	4	3	3	5	1.04
19	1	1	1	1	1	1	1	1	1	1	1	0.46
20	3	2	2	2	2	3	2	2	2	2	2	0.60
21	3	4	4	3	4	4	3	2	2	2	4	1.28
22	7	7	7	7	7	7	7	7	7	7	7	0.30
23	3	1	1	1	0	0	0	1	1	1	1	1.17
24	0	0	3	4	0	0	0	0	0	0	0	1.06
25	0	0	0	0	0	0	0	0	0	0	0	0.00
26	5	5	5	5	5	5	5	5	5	5	5	0.40
27	3	4	4	4	4	3	4	4	3	4	4	0.51
28	5	5	5	5	5	5	5	5	5	5	5	0.00

Sub #	Day 4 Applic. 3	Day 5 Applic. 1	Day 5 Applic. 2	Day 5 Applic. 3	Day 6 Applic. 1	Day 6 Applic. 2	Day 6 Applic. 3	Day 7 Applic. 1	Day 7 Applic. 2	Day 7 Applic. 3	Mean	St. Deviation
29	4	4	4	4	4	4	4	4	4	4	4	0.46
30	2	2	2	2	2	2	2	1	1	1	2	0.87
31	1	1	1	2	1	1	1	1	1	1	1	0.50
32	2	3	2	2	2	0	1	2	2	2	2	0.78
33	6	6	4	3	3	2	2	6	5	5	4	1.64
34	10	10	10	10	10	10	10	10	10	10	10	0.72
35	5	4	3	3	3	3	3	4	4	4	5	1.20
36	4	4	4	5	4	4	4	4	4	4	4	0.51
37	2	0	5	5	0	5	5	0	5	5	3	2.31
38	5	7	6	6	6	6	7	6	5	5	6	0.74
39	3	8	5	3	5	3	3	3	2	2	3	1.91
40	8	8	8	8	8	7	7	7	7	7	8	0.44
41	7	7	7	7	7	7	7	7	7	6	7	0.48
42	1	2	1	2	1	2	2	0	1	1	1	0.75
43	3	7	6	4	7	6	5	7	5	4	5	1.31
44	4	4	4	5	5	4	3	4	3	4	4	0.79
45	6	6	6	6	6	6	6	6	6	6	6	0.48
46	3	3	2	2	3	3	3	2	2	2	3	0.77
47	4	4	4	5	3	4	4	3	4	4	4	0.96
48	6	4	3	4	4	6	3	2	5	4	4	1.21
49	2	2	2	2	2	2	2	2	2	1	2	0.75
50	2	2	2	1	2	1	1	1	0	0	2	1.09
51	2	2	3	2	3	2	2	2	1	2	2	0.87
52	4	4	4	4	5	4	4	4	4	3	4	0.48
53	4	4	4	4	4	4	4	4	4	4	4	0.36
Overall											4	0.47