

## **Egoscue Method Referral Pilot Study**



# **Findings from the Pilot Study of Primary Care Referrals to Egoscue Method Clinics**

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## Egoscue Method Referral Pilot Study



**Executive Summary:** As part of its preparations for the SPINE-CARE Trial, the Clinical Excellence Research Center (CERC) conducted two studies: (1.) a pilot testing the effectiveness of referrals of acute spine pain patients from their primary care clinicians to Egoscue clinics and (2.) an outcomes survey to collect pain and functioning status reports of patients at the beginning of their Egoscue treatments and two months later. This report summarizes findings from the pilot and preliminary findings from the outcomes survey.

- The pilot found rates of patients' adherence in making and keeping Egoscue appointments to be higher than those reported for traditional medicine: 65% of patients referred to Egoscue made and kept a first appointment while only 40 % to 28 % spine pain patients referred from primary care to physical therapy (PT) make and keep PT appointments. This suggests that in the Stanford SPINE-CARE Trial, Egoscue referrals may have higher visit adherence rates than the comparator arm of usual care.
- The pilot also assessed patients' adherence to recommended exercises one week after their first Egoscue visit. Patients reported high rates of exercise adherence: 73% reported that Egoscue exercises were "very easy" to understand and follow; the same proportion (73%) reported doing the Egoscue exercises daily.
- The outcomes survey of Egoscue patients collected baseline characteristics and two-month outcomes from both primary care-referred patients and self-referred Egoscue method. Findings to date indicate:
  - The two patient groups are similar in demographics and in reporting Egoscue exercises to be easy to understand and to do. The two patient groups differ in that the PCC-referred patients report higher rates (86%) of doing *all* prescribed Egoscue exercises in their daily at home regime than did the self-referred patients (63%).
  - Egoscue patients improved dramatically in spine-related disability and pain from the beginning of treatment to their two-month follow-up: a 31% decrease in pain and a 79% improvement in functioning and mobility related to their spine condition.

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**Background:** The Clinical Excellence Research Center (CERC) at Stanford has studied spine pain care because mainstream medical care is believed to have little value in either speeding recovery or in avoiding progression to chronic pain. CERC’s review indicated that simplified approaches to patient care that avoided most imaging, prescription pain medications, referrals to orthopedic specialists, and surgeries could capture substantial savings equal or improved patient outcomes. To test this possibility, CERC working via its long-standing partnership with a research unit—The Center for Healthcare Delivery Sciences at Harvard University-- and a strategic philanthropist designed a randomized, pragmatic trial to compare three approaches to primary care for acute spine pain: (1) usual care; (2) usual care supplemented with referrals to a science-based protocol (3) usual care supplemented with referral to Individualized Postural Therapy provided by Egoscue Method Clinics. <sup>1</sup>

To prepare for the pragmatic trial, CERC conducted a pilot to assess patient adherence to primary care referrals to the Egoscue Method. This report summarizes our findings. We also report here early findings from an outcomes survey of Egoscue patients at beginning of treatment and two months later for pain and functioning status outcomes.

### **Methods and Overall Design:**

**Study Sites:** Three primary care clinicians (PCCs) in full-time practice, two internists and one nurse practitioner, participated in the study. Each clinician agreed to refer patients meeting inclusion/exclusion criteria during the two-month study period to a local Egoscue Method clinic within easy commuting distance. The PCCs were given referral forms developed for the pilot, a log to maintain of referred patients, and a suggested script to use in describing the Egoscue Method to referred patients (see Appendices A, B, and C for these materials.) The PCCs were also given background materials concerning the Egoscue approach: a one-page description of Egoscue Method for evaluating patients and exercise regimes; a short video developed by Egoscue explaining their care process; and book

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<sup>1</sup> The pragmatic trial is the Spine Pain Intervention to Enhance Care quality And Reduce Expenditure (SPINE-CARE.)

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written by the founder of Egoscue explaining their method and how it was developed, *Pain Free, The Egoscue Method of Health through Motion*. At the close of the pilot, the PCCs were interviewed and asked for comments and suggestions concerning study procedures.

**Outcome Measures:** For the pilot's two-month observation period (mid-March to mid-May, 2017) referred patients were followed for two adherence outcomes: visits to the clinic and self-report of daily exercises. Patients were tracked to determine when they made an appointment with the Egoscue clinic to which they were referred and whether and when they made a first and a second. Patients' calls to make appointments, and first two visits to Egoscue were tracked through a log maintained by the Egoscue Clinics.

Patients' adherence to their prescribed Egoscue daily exercise regimes were also measured through an adherence survey. The survey asked patients to rate their ease or difficulty in doing the exercises, how many days per week they had done the exercises, and how many of the prescribed exercises they had done on average each day (see Appendix D for the survey.) The adherence survey was administered roughly one week after the first Egoscue visit by an Egoscue coach either by telephone or during a clinic visit.

In the outcomes survey study, Egoscue patients reported their pain and functioning at the beginning of treatment and two month later. This study is still ongoing. We report here preliminary data for respondents' change in pain and physical and emotional function.

**Honoraria:** Patients' first and second Egoscue visits were paid for by study funds. Patients who chose to continue Egoscue visits beyond the second visit paid out of pocket for additional visits. Egoscue fees are \$250 per visit. Participating PCC's were paid an honoraria of \$125 per patient.

**Patients:** Inclusion criteria for patients: 18 years of age or older with daily neck or back pain. of up to six weeks. Most patients had multiple previous episodes of spine pain. Patients were excluded if they were being actively treated for a cancer or a life-threatening condition, or had mobility impairments that would prevent their participating in postural therapy exercises.

**Primary Care Clinicians and their Practices:** The participating practices are located in Marin County, California and in Phoenix, Arizona. One Marin PCC was an internist who had been in practice for 11

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years and the other Marin PCC was an internist who had been in practice for 21 years. The Phoenix PCC was a Nurse Practitioner who had been in practice for 17 years. All three practices offer same-day appointments for their patients. The PCC reported that their panels of adult patients are 1,100 and 1,200 (for the Marin internist in practice for 11 years and for 21 years respectively) and 2,000 (for the Nurse Practitioner.) Patients in each practice were a mix of commercial (60% to 40%) and Medicare (30% to 55%). Each practitioner estimated that on average they see roughly one to two acute spine pain patients each week. (See Tables 1 A and B.)

**Table 1 A. Information about Referring Practices**

Practice Characteristics	DNP, Phoenix	MD1, San Rafael	MD2, San Rafael
Full-time or part-time	Full-time	Full-time	Full-time
Approximate number of adult patients	2,000 patients	1,100 patients	1,200 patients
Payor mix	60% commercial, 30% Medicare, and 10% cash	40% commercial HMO/PPO, 55% Medicare, and 5% MediCal	40% commercial HMO/PPO, 55% Medicare, and 5% MediCal
Offer same day appointments	Yes	Yes	Yes

**Table 1 B. Information about Referring PCCs**

PCP Characteristics	DNP, Phoenix	MD1, San Rafael	MD2, San Rafael
Approximate number of acute spine patients seen per week	1 to 2	1 to 2	1 to 2
Duration of practicing as a PCP	17 years	11 years	21 years

**Results:**

A total of 17 patients were referred during the two-month pilot to Egoscue by the three PCCs. Eight patients by the Phoenix Nurse Practitioner and nine by the two Marin County Internists. The PCCs reported that they proposed a referral to Egoscue to all presenting adult, spine pain patients meeting criteria. The Marin County Internist had no patients decline the referral. Nurse Practitioner reported that two of her patients declined the referral. These patients each reported that they had tried physical therapy previously and had been disappointed. (See Table 2.)

**Table 2. PCC reports of Referral Consistency and Acceptance**

	DNP, Phoenix	MD1, San Rafael	MD2, San Rafael
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Able to suggest referral to Egoscue to all adult acute spine pain patients	Yes	Yes	Yes
Any eligible patients that you suggested a referral decline to participate	Yes	No	No
Number of eligible patients who declined	2	0	0

**Referred Patient Demographics:** The referred patients were on average 51.1 years (range: 23-70 years). A majority (76%) being female and all being Caucasian. (See Table 3.)

**Table 3. Referred Patient Demographics**

	Referred Patients N=17
Age, average (range)	51.1 (23-70)
Gender, # (%) female	13 (76)
Race, # (%) Caucasian	17 (100)

**Appointments and Visits in response to Referral:** For these 17 referred patients on average 71% made an appointment to visit Egoscue, 65% attended a first visit, and 41% attended a second visit within the two-month observation period. (See Table 4 A.)

**Table 4 A. Appointments Scheduled and Visits Attended**

EM Clinic	Patients referred by PCC	Patients scheduled appointments within 2 weeks of referral  (% of those referred who made appointment within 2 weeks of referral)	Patients Came to First Appointment within 3 weeks of referral  (% of those referred who came to first appointment within 3 weeks of referral)	Patient Came to second Appointment  (% of those referred who came to a 2nd appointment within 4 weeks of referral)
Phoenix	8	7 (88%)	7 (88%)	6 (75%)
San Rafael	9	5 (56%)	4 (44%)	1 (33%)
<b>Total</b>	<b>17</b>	<b>12 (71%)</b>	<b>11 (65%)</b>	<b>7 (41%)</b>

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On average, the first visit was made within 9.1 days of the referral (range: 1-19 days) and the second visit was made within 18.2 days of the referral (range: 6-26 days). (See Table 4 B.)

**Table 4 B. Length of time between referral and 1<sup>st</sup> and 2<sup>nd</sup> visits**

EM Clinic	Length of time in days between Referral and First Appointment, average (range)	Length of time in days between Referral and Second Appointment, average (range)
Phoenix	10.9 (6-19)	19.4 (13-26)
San Rafael	5 (1-11)	14 (6-22)
<b>Total</b>	<b>9.1 (1-19)</b>	<b>18.2 (6-26)</b>

**Exercise Adherence Survey:** Of the fifteen adherence surveys collected, eleven respondents reported that the Egoscue exercise instructions were “*very easy*” to follow and four reported that they were “*somewhat easy*” to follow. (See Table 5.) In response to question “*How often did you do your recommended exercises,*” eight patients reported daily during the previous week, two reported six times, four reported five times, and one respondent reported three times. In response to the question “*Over past week, how many of the recommended exercises did you do?*” eleven reported “*all*” and four reported “*some*.” The most reason that the patients provided for not completing all of the exercises daily was not having enough time for these exercises to become habit. The second most common reason was difficulties associated with travel.

**Table 5. Egoscue Adherence Survey Responses**

Patient #	EM Clinic	How easy or difficult is it to follow the instructions you were given for your exercises?	Over the past week, how often did you do your recommended exercises?	Over the past week, how many of the recommended exercises did you do?
01	Phoenix*	Very easy	Daily	All of them
02	Phoenix*	Very easy	5 times	All of them
03	Phoenix*	Very easy	Daily	All of them

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04	Phoenix*	Very easy	5 times	Some of them
05	Phoenix*	Somewhat easy	Daily	All of them
06	Phoenix*	Very easy	3 times	Some of them
07	Phoenix*	Somewhat easy	Daily	Some of them
08	Phoenix	Very easy	Daily	All of them
09	Phoenix	Very easy	6 times	All of them
10	Phoenix	Somewhat easy	6 times	Some of them
11	Phoenix	Very easy	5 times	All of them
12	Phoenix	Very easy	Daily	All of them
13	Phoenix	Very easy	Daily	All of them
14	San Diego*	Very easy	Daily	All of them
15	San Rafael	Somewhat easy	5 times	All of them

\* Indicates the patient was not referred as part of the Egoscue Method Referral Pilot Study.

**Patient Reported Change in Pain and Functioning:** In the companion Egoscue outcomes study, preliminary findings indicate strong positive change from beginning of treatment to two months later. Patient reports of pain decreased from 6.4 to 4.4 on the 10-point scale (31% decrease) and on the Oswestry 100-point disability scale disability decreased from 34.4 to 7.2 (79% decrease.)

**Figure 6. Patient Reported Pain and Disability Change from Baseline to Two Months**

	Baseline	Follow-up	Change between Follow-up and Baseline
<b>Pain level, average (range)</b>	6.4 (3-10)	4.4 (2-10)	2.0 (0-5)
<b>Oswestry score, average (range)</b>	34.4 (18-92)	7.2 (0-26)	27.2 (0-90)

**Comments from the participating PCC's:** All three participating PCC's indicated in interviews that they found reports from the Egoscue clinic of their patient's progress and response to treatment to be useful . All suggested that communication with the Egoscue clinics (reporting referrals made each week with patient names and contacts so that Egoscue could contact patients to offer appointments) would be made easier if Egoscue clinics had fax machines to receive the referral reports. Two of the

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PCCs reported using the prepared script and finding it useful to have the Egoscue film and descriptive materials. They also reported that having a customized referral slip to give to the patient including Egoscue clinic telephone number, address, and instructions for first visit was both useful and appeared to make the referral more formal and acceptable to most patients. One PCC suggested that a referral fax to Egoscue each day a referral was made would be more efficient than the weekly log designed for the pilot.

**Limitations of the pilot study:** A limitation of the study design is that, for reasons of protecting patients' identity, the adherence survey was administered by an Egoscue coach rather than by a neutral party. It is possible that patients were biased and reported higher levels of adherence to Egoscue exercises because they did not want to offend or to disappoint the coach. Another limitation is the two-month observation period for patient appointments and visits. It is possible that more of the referred patients made and kept Egoscue appointments after the observation period. Several patients indicated that trips abroad or family emergencies had caused them to postpone or cancel visits.

Finally, the pilot study paid only for the first two Egoscue visits and not for subsequent visits. While subsequent visits were not mandatory, a normal course of Egoscue therapy for spine pain averages six visits. It is possible that had additional visits been paid for by the study – as they will be in the trial-- more patients would have made and kept first and second Egoscue appointments.

### **Conclusions:**

Overall the patients referred to Egoscue exhibited a high rate of compliance with their referrals, 71% making an appointment, 65% having a first visit, and 41% having a second visit. These rates compare favorably with rates reported in mainstream medical journals for physical therapy (PT) referrals which are typically in the range of 28% to 40%.<sup>2,3</sup>

**Table 7. Patient Adherence to Referral: Egoscue Pilot, ICE Pilot, and Fritz PT Studies**

	Adherence to 1 <sup>st</sup> Visit	Adherence to 2 <sup>nd</sup> Visit, if applicable
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<sup>2</sup> Julie Fritz, et. al. "Does Adherence to Guideline Recommendation for Active Care Improve Quality," Medical Care, October 2007.

<sup>3</sup> Julie Fritz, et. al., "Physical Therapy for Acute Low Back Pain," Spine, 2008.

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<b>Egoscue Pilot Study</b>	65%	41%
<b>Fritz 2007 PT Study</b>	40%	N/A
<b>Fritz 2008 PT Study</b>	28%	N/A

Patients' reports of their understanding of the Egoscue exercise instructions and adherence to the exercise regime also appeared high as all patients found the instructions for the prescribed exercises either as "somewhat easy" or "very easy" to follow. Seven of the 17 patients reported performing all of the prescribed exercises daily.

Study materials supporting the PCCs and patients appeared to work well. The PCCs did, however, suggest that the process would be improved if they could have faxed to the EM clinic the contact details of the referred patients. This will be added to the study procedures if Egoscue agrees.

Several adjustments were made to the pragmatic trial design for the Egoscue arm based on reports from the PCCs. All PCCs suggested that referring clinicians should receive feedback from Egoscue about their patients and their progress. As a result, a patient progress report form was developed to be used in the pragmatic by Egoscue coaches in communicating referred patients' progress back to their PCCs. Also, patients referred to Egoscue in the pragmatic trial will have no out of pocket expenses for whatever number of visits is agreed upon by the patient and the Egoscue coach. All visits will be a study expense. These measures were recommended by participating PCCs as likely to support the effectiveness of referrals and improve patient adherence rates.

Overall, the Egoscue Referral Pilot study's result indicate that rates of patient adherence to PCC referrals to Egoscue are high (65%) and exceed those found in comparable spine patient referral studies to traditional medicine such as physical therapy (40%-28%). We also found high rates (86%) of PCC-referred patients' adherence in doing *all* the prescribed daily Egoscue exercises while self-referred Egoscue patients reported lower rates (63%) of full daily adherence

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## Appendices

### A. Egoscue Referral Slip

**Referral to Egoscue Method for Individualized Postural Therapy**

\_\_\_\_\_ [patient name]

\_\_\_\_\_ [problem]

Egoscue Method

\_\_\_\_\_ [address]

Call \_\_\_\_\_ to make an appointment. Egoscue should be able to make an appointment within one week.

There is **no payment** required from you for your first and second visits will be paid for by an Institute at Stanford, the Clinical Excellence Research Center (CERC).

**Please turn this in when you go to Egoscue Method for your first visit.**





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### B. Suggested Scripts for Use by PCCs in suggesting Egoscue Referral

*Suggested script for PCP to use in telling patients they are making a referral to EM*

*Because of your back pain problem, I would like to refer you to an individualized postural therapy clinic that is located in San Rafael. This clinic works with patients to evaluate their body alignment and give them exercises to do to relieve conditions like back pain. Their treatments do not involve body manipulations, drugs or diagnostics beyond interviewing you, photographing your posture and observing your movement.*

*Our office is participating in a pilot study with Stanford to evaluate approaches to management of spine pain. Because of that, your first two visits to Egoscue will be paid for by the study. These 2 visits have a value of \$500. You would have no obligation to continue beyond the first two visits, but if you do, you would pay for further visits out of pocket.*

*Here is a referral slip with the telephone number you can call to make an appointment with them. They should be able to see you in the next week.*

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## D. Exercise Adherence Questionnaire

Study ID # \_\_\_\_\_

Date: \_\_\_\_\_

1. How easy or difficult is it to follow the instructions you were given for your exercises?

- Very easy *(skip to Q2)*
- Somewhat easy *(skip to Q2)*
- Neither easy nor difficult *(skip to Q2)*
- Somewhat difficult
- Very difficult →

1a. If somewhat difficult or very difficult, please specify why:

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2. Over the past week, how often did you do your recommended exercises?

- Daily *(skip to Q3)* →
- 6 times →
- 5 times →
- 4 times →
- 3 times →
- 2 times →
- 1 time →
- None →

2a. If not done daily, please specify why not:

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3. Over the past week, how many of the recommended exercises did you do?

- All of them
- Some of them →
- None of them →

3a. If Some of them was chosen, what percentage of the recommended exercises did you generally do? \_\_\_\_\_

*(continue to Q3b below)*



3b. Please specify why you were not able to do all of the exercises or what obstacles you faced when trying to do these exercises.

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