

# The Bridge Study

## Results of Program Effectiveness

Data gathered by Ryan Hughes Pre-Med student BYU / USU

Statistics Prepared by Bart Poulson, Ph.D Statistics Dept. UVSC

### Overview

51 Guests sampled by Ryan Hughes

35 Female & 11 Male (4 not coded from name)

Year attended: 8 in 2001, 18 in 2002, & 19 in 2003

Bart Poulson, Ph.D and Ryan Hughes are not affiliated with the Bridge Recovery Program

### Statistics included

N: Number of verifiable responses.

Median: The middle score. 50% are at or below this score. Good for skewed data.

Mean: The average. Good for symmetrical data.

Standard Deviation: How far the data are from the mean, on average.

### Open-ended variables

Employment before

Employment now

Other treatments before The Bridge

#### 1. Hours worked per week before

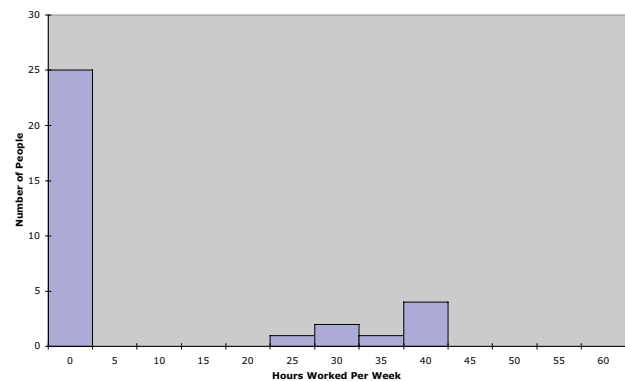
N: 33

Median: 0

Mean: 8.4

Standard Deviation: 15.5

*Most of the people weren't working before coming to The Bridge.*



#### 2. Hours worked per week after

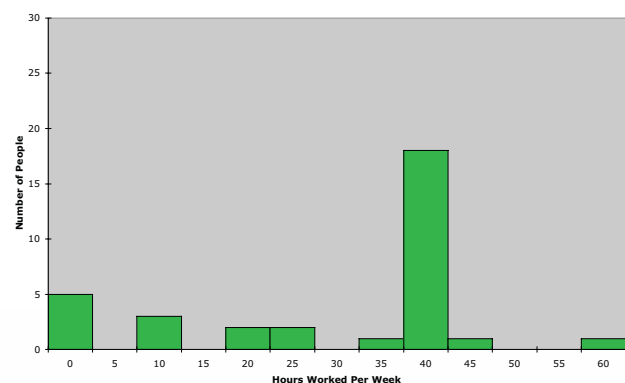
N: 33

Median: 40

Mean: 29.8

Standard Deviation: 16.6

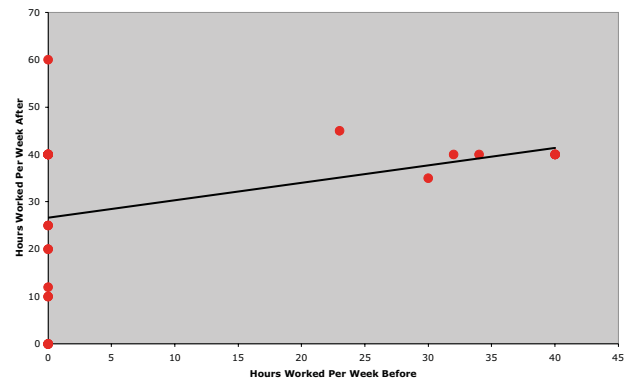
*Most of the people are now working full-time after coming to The Bridge.*



### 3. Hours worked before vs. hours worked after

$r = .34$

*The most interesting part of this is the number of people stacked on the left side, who didn't work at all before. One of them is now working about 60 hours per week.*



### 4. Change in physical effort

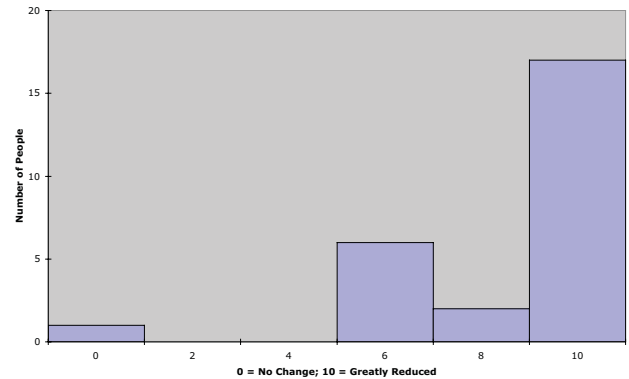
N: 26

Median: 10

Mean: 8.2

Standard Deviation: 2.7

*I believe this question applies to effort in work before and after, so not every answered it. Nevertheless, over half the people report maximum improvement.*



### 5. Pain before

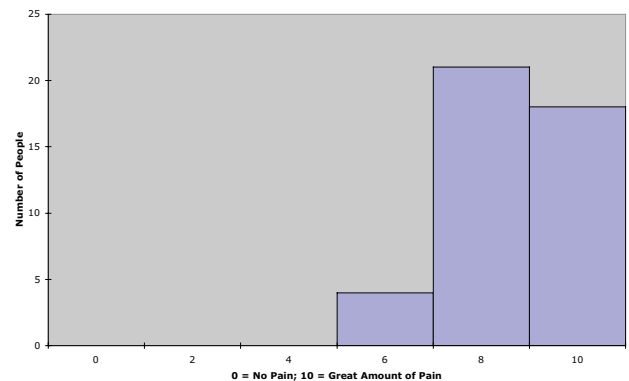
N: 43

Median: 8

Mean: 8.4

Standard Deviation: 1.3

*Most of the people reported high levels of pain before coming to The Bridge, with over 50% reporting 8 or higher on a 10-point scale.*



### 6. Pain now

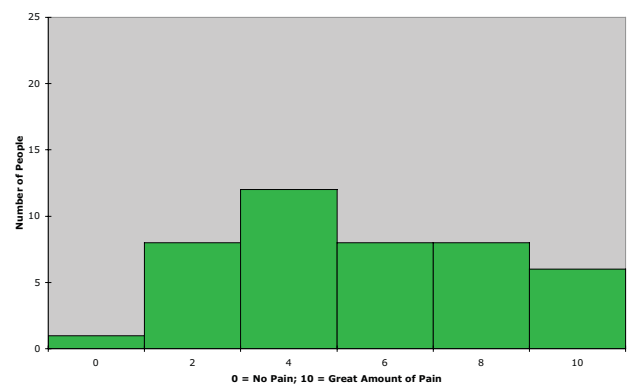
N: 43

Median: 5

Mean: 5

Standard Deviation: 2.6

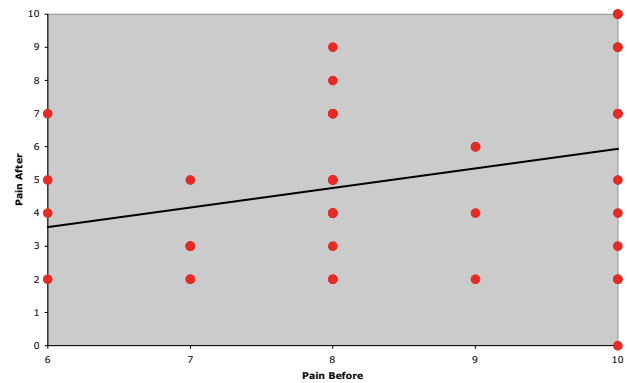
*After coming to The Bridge, reported pain decreased substantially for most people, with 50% now reporting 5 or less on a 10 point scale.*



## 7. Pain now vs. pain before

$r = .30$

*This chart shows that for most people, reported pain was only about half as severe after coming to The Bridge.*



## 8. Deal with pain before

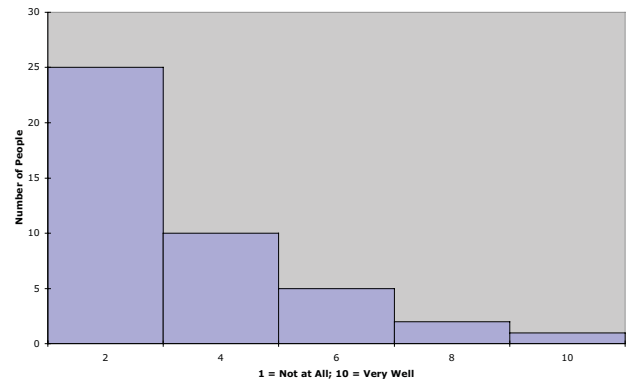
N: 43

Median: 2

Mean: 2.7

Standard Deviation: 2.1

*Not many people dealt with pain effectively before coming to The Bridge.*



## 9. Deal with pain now

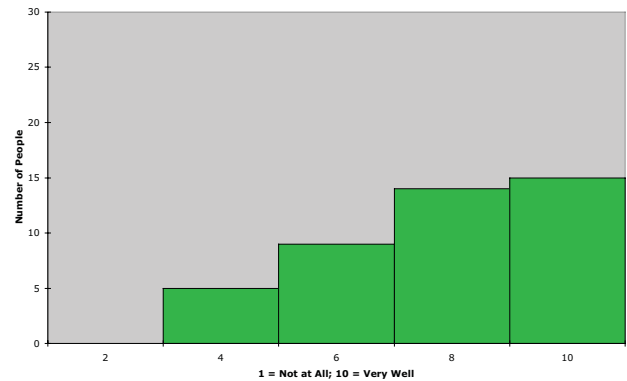
N: 43

Median: 8

Mean: 7.5

Standard Deviation: 2.0

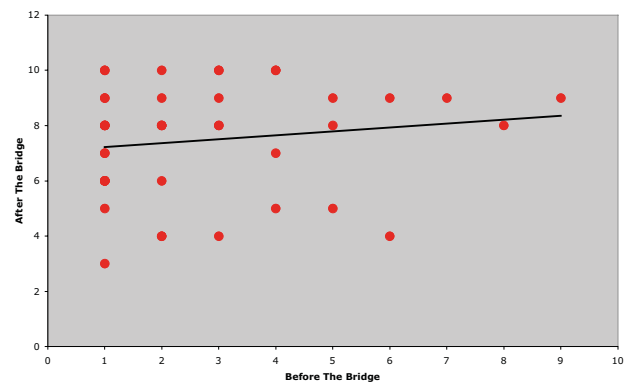
*Ability to deal with pain increased substantially after coming*



## 10. Deal with pain before vs. deal with pain now

$r = .15$

*In general, people's scores went up (i.e., they have learned to deal more effectively with pain). The correlation isn't strong but this could be a good thing: after attending The Bridge, almost everybody was able to deal with pain well, regardless of previous ability.*



## 11. Depression before

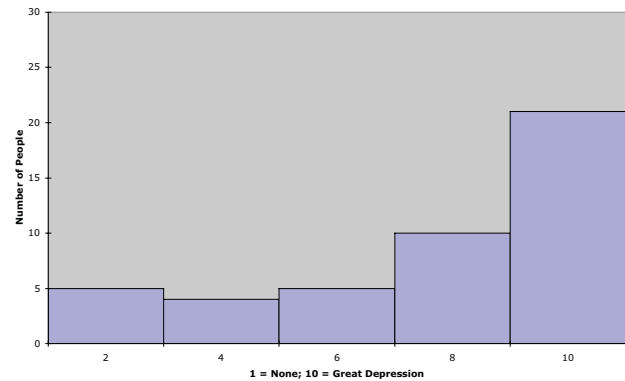
N: 45

Median: 8

Mean: 7.2

Standard Deviation: 3.0

*Depression levels before coming to The Bridge were high (at least as reported in retrospect), with 50% at 8 or higher on a 10 point scale.*



## 12. Depression now

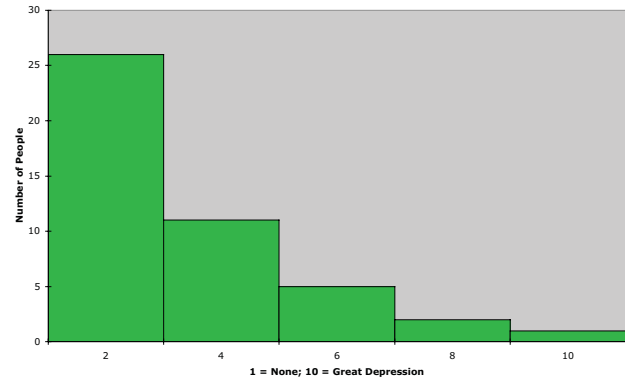
N: 45

Median: 2

Mean: 2.6

Standard Deviation: 2.0

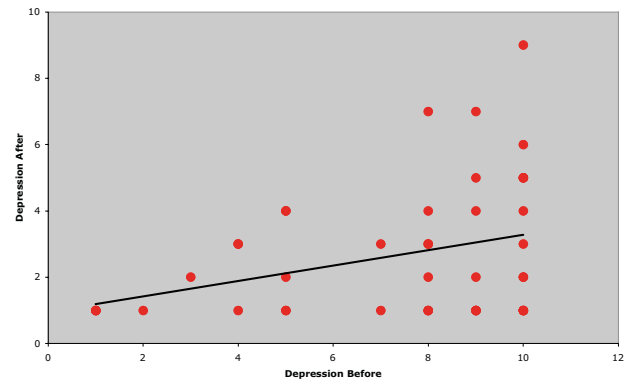
*Depression levels were much lower overall, with 50% now reporting levels of 2 or lower on a scale of 10.*



## 13. Depression before vs. depression now

$r = .34$

*In no case did depression increase after attending The Bridge. In a small number of cases it remained relatively constant but in the great majority depression decreased substantially.*



## 14. Change in doctor visits

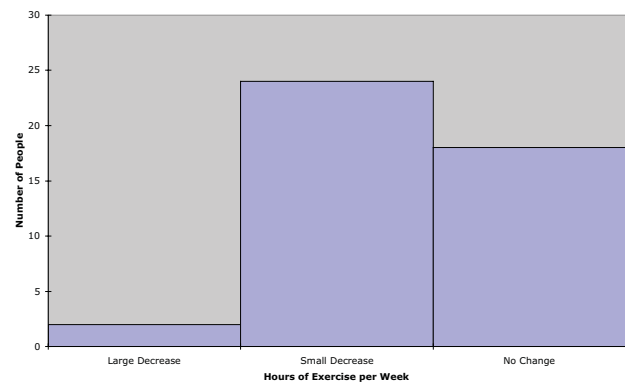
N: 44

Median: -1

Mean: -0.6

Standard Deviation: 0.6

*The majority of participants reported some decrease in doctor visits after attending The Bridge.*



## 15. Healthy living before

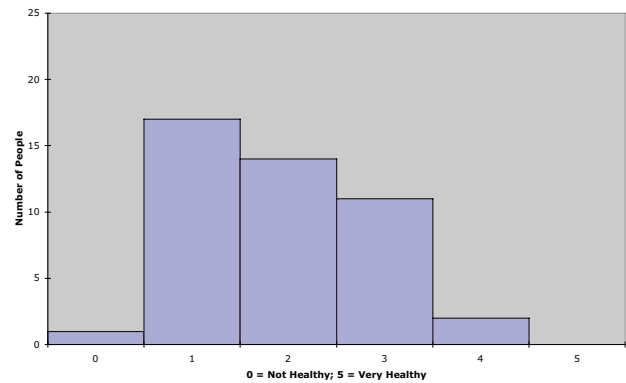
N: 45

Median: 2

Mean: 1.9

Standard Deviation: 0.9

*Few participants were practicing healthy living before attending The Bridge.*



## 16. Healthy living now

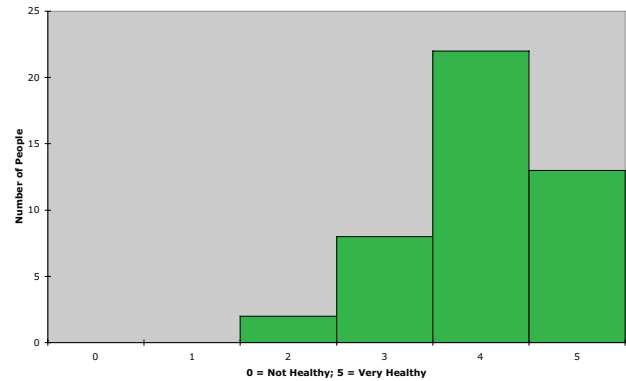
N: 45

Median: 4

Mean: 4.0

Standard Deviation: 0.8

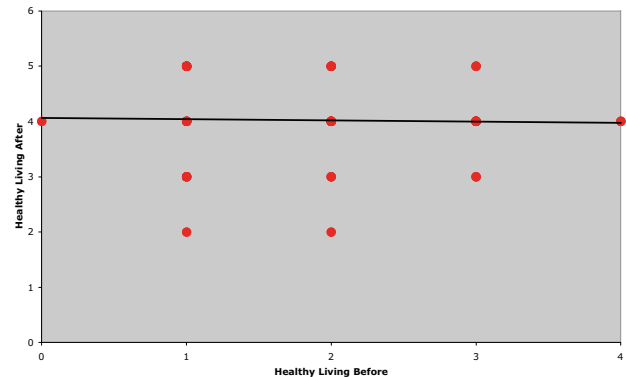
*Although far from perfect, healthy living practices were noticeably more common after attending The Bridge.*



## 17. Healthy living before vs. healthy living now

$r = -0.03$

*Levels of healthy living increased substantially (about 2 points on a 5 point scale). The current level of healthy living is unrelated to previous levels.*



## 18. Bridge's effectiveness in comparison to other programs

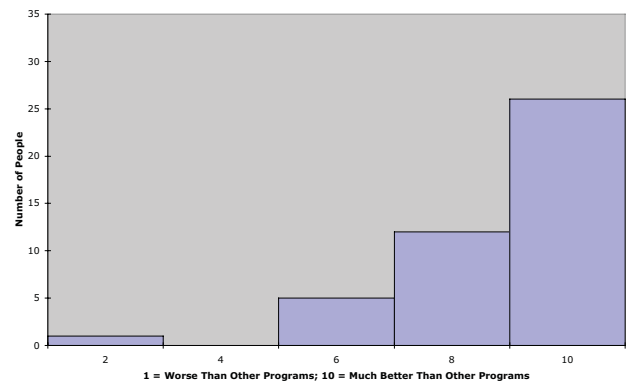
N: 44

Median: 9

Mean: 8.5

Standard Deviation: 2.0

*The overwhelming majority of participants gave The Bridge stellar marks in comparison to other programs they have worked with.*



## 22. Change in medication

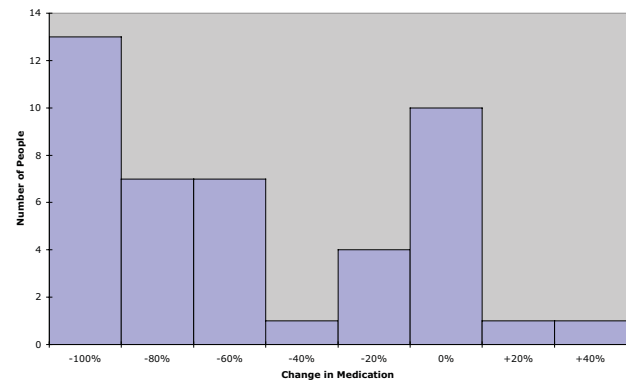
N: 44

Median: -0.6

Mean: -0.5

Standard Deviation: 0.4

*The great majority of participants reported decreases in the required amount of medication following attendance at The Bridge.*



## 23. Exercise per week before

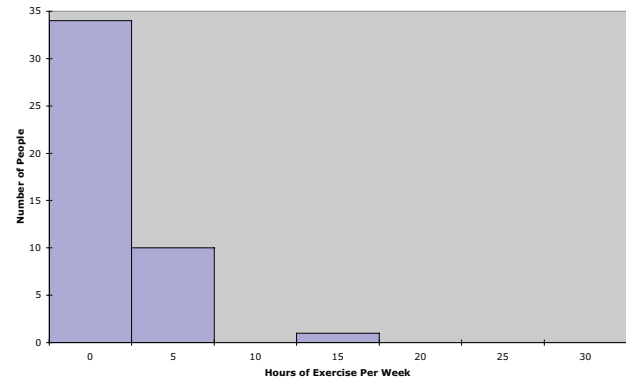
N: 45

Median: 0

Mean: 1.8

Standard Deviation: 2.9

*[It looks like some people may have interpreted this as hours per week and others as minutes per day. As a result, the data are probably not useful.]*



## 24. Exercise per week now

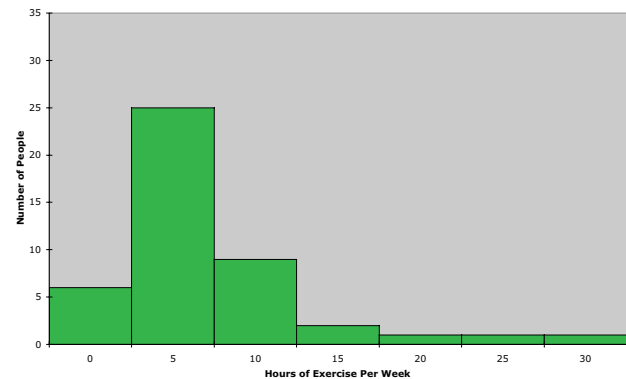
N: 44

Median: 6

Mean: 7.1

Standard Deviation: 5.9

*[This variable may have the same difficulties as the previous.]*



## 26. Recommend program

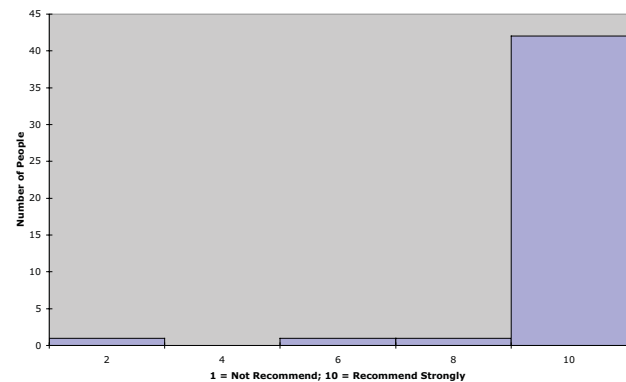
N: 45

Median: 10

Mean: 9.6

Standard Deviation: 1.5

*Nearly 90% of participants gave The Bridge the most enthusiastic referral response possible. Overall, the participants seemed thrilled with their experience at The Bridge.*





## The Bridge

### Case Study 1

Patient: D.S.

Sex: Male

Age: 46

Program Dates: 8/29/01 to 9/15/01

Diagnosis: Back Pain

History: Pt. injured back in April of 1999 lifting a 12-pound object. Pt. experienced severe pain that prevented him from continuing to work. Pt. was referred to a chiropractor and subsequently to an orthopedic surgeon. The pt. was manipulated by the chiropractor which made symptoms worse. In August of 1999, pt. had a discectomy performed with removal of bone fragments. Pt. experienced moderate relief of symptoms for approximately six weeks then symptoms returned. Pt. underwent a second surgery to correct a narrowed spinal canal. The patient continued to experience severe pain that was treated with oxycontin and three to four series of epidural injections. The pt's pain persisted and in February of 2001 a spinal cord stimulator was placed. The stimulator placement failed and was re-placed a few weeks later. The patient reported a significant increase in pain since placement of the stimulator and has asked that it be removed. The stimulator remained in place upon admission to The Bridge. Pt's physician had deemed that he had reached maximum medical improvement and was prepared to provide a permanent disability rating upon completion of The Bridge program.

Level of Function upon Admission: At admission, the patient reported pain of 10/10 and was unable to sit. The pt. stood for all meals, lectures, and workshops. The pt. was able to walk approximately 100 feet and was unable to ascend or descend stairs.

Level of Function at Discharge: At discharge from The Bridge, the pt. was able to walk 2000 feet and was able to sit briefly. The patient's strength had increased significantly and his psychological outlook was such that he felt he would be able to resolve his medical problems and return to work.

Current Functional Status (July 2003): Pt. was able to return to work approximately two months after completion of The Bridge program. He began working part-time and has since increased to working full-time, which he has been doing for over a year. Pt. is working in a supervisory capacity with a light physical demand level. The pt. continues to experience minor pain at times, but that pain is relieved through occasional massage therapy and relaxation techniques.

## The Bridge

### Case Study 2

Patient: J.M.

Sex: Female

Age: 54

Program Dates: 10/29/01 to 11/17/01

Diagnosis: Back Pain with radiculopathy

History: Pt was injured in March of 1998 after slipping on some juice and falling while working in a retail store. She was able to work for one or two more days but was then unable to continue to work due to the acute pain. The patient had been unable to return to work until June of 2001. Approximately one week after returning to work, the patient was sitting on a stool filling out forms at work when the stool collapsed. The pt. suffered compression fractures of two vertebrae in the fall and was again unable to work due to disability.

Level of Function upon Admission: Pt. reported constant pain and was unable to participate in any physical activity at all because of the pain. She had also become 30 to 40 pounds overweight due to her inactive lifestyle following the injuries. The patient was a Type II diabetic with poorly controlled blood sugars. The patient's endurance was poor as she was able to walk approximately ¼ of a mile and needed assistance to climb stairs.

Level of Function at Discharge: Upon discharge, the patient reported significantly reduced pain and improved function. The patient was able to walk two miles. The patient had lost weight and 3% body fat. The patient's blood glucose levels had stabilized at an acceptable level. The patient's greatest improvement was in the domain of psychological outlook and social outlook. The patient left the program feeling that she was ready to return to work and desiring the social interaction experienced at work.

Current Functional Status (July 2003): The patient was able to return to work within 2-3 weeks after completion of The Bridge program. The patient currently continues to work full-time, over one year after completing The Bridge Program. The patient has lost a total of 15 pounds since beginning The Bridge program and experiences little or any back pain.



## "What Our Guests Say"

"I have two bulging discs, facet joint problems, spinal stenosis, and sciatic pain. Before I went to the Bridge I didn't feel that I could hold a full time job. I had lost most of my friends and rarely got out of my house.

While at The Bridge, I learned I still had a great deal to offer. I learned my body is not nearly as limited as I thought. I learned the importance of exercise, nutrition, sleep and mental health. I really felt genuinely cared for at The Bridge. I learned that I don't have many limitations if I am dedicated to my recovery.

I am now confident and can work a full day with no problems. My life has improved more than I thought possible. The Bridge was my last hope. I put everything into it and so far I am very pleased and would recommend it to anyone."

**-Nicole S.**

From the very minute that we walked through the door of The Bridge there was such a feeling of hope. That has been absolutely vital in the way that I now think about my own life and think about the pain issues that are in my life. I can deal with them and I will deal with them and I will have my life back.

**-Carol L.**

I was depressed and it was just wonderful to get somewhere where people cared and didn't push me away. I had so many doctors say "It's all in your mind". They don't understand chronic pain. Everyone at The Bridge made me feel loved and that I can do it.

**-Sean M.**

I was hurt at work and I couldn't walk very well. Before I came to The Bridge I had a lot of pain in my back. I also had type II diabetes and I was struggling with both the diabetes and the pain and not being able to walk normally.

Now I am working and can walk normally. My blood sugar is down. I feel good about myself and I am just happy now and I wasn't before I went to The Bridge.

**-Judy M.**

The Bridge and the staff are real. They really care and they really pull everyone together. We not only learn from the staff, but we learn from each other.

**-Deborah O.**