ABSTRACT

Previous massage research has focused on short-term reactive treatment of acute muscle injury and has often failed to clearly demonstrate positive effects (Tidus, 2008). Assessment of a more “ecologically valid” massage treatment program would more realistically represent actual massage treatment and possibly help validate the strong anecdotal evidence for the effectiveness of regular massage therapy in reducing injury rates and enhancing recovery in a wide range of active individuals.

PURPOSE: To assess the effectiveness of an individualized weekly massage therapy program on indices of muscle strength, pain, daily functioning, and qualitative measures associated with exercise adherence in a population similar to that encountered in real massage therapy practices on a population similar to that encountered in real massage therapy practices.

METHODS: A regular proactive massage therapy program was evaluated. Nineteen participants (9 females, 10 males; mean age 34.3 yrs, SD=8.2) were recruited for the study. Individuals selected their own running location. The goal of both groups was to complete a 10 km race. The control group was blinded to the direct purpose of the study. Twelve control subjects (11 females, 1 male; mean age 33.3 yrs, SD=4.5) and sixteen massage subjects (11 females, 5 males; mean age 34.3 yrs, SD=8.2) took part in the study. Both group participants in a 10-week running clinics by the Running Room. Participants met two times per week for group runs and were expected to run individually to their weekly running targets. The groups attended the running clinics at separate store locations. The control group was blinded to the direct purpose of the study. The massage group received a one hour assessment from a registered massage therapist (RMT) on the first week of the clinic. A individualized treatment plan was developed for each participant based on their specific running and body needs.

RESULTS:

• Strength was evaluated on both legs and in both of the quadriceps and hamstring muscles using an isometric and dynamic peak torque with a Cybex IIs dynamometer. One isotonic contraction completion was calculated for both the right and left leg with leg angle at 90 degrees and speed at 0 degrees/second. Three dynamic contractions were calculated for both the right and left leg with leg angle at 90 degrees and speed at 60 degrees/second. An average of the three evaluations was calculated to represent dynamic quadriceps contraction (right and left leg) and dynamic hamstring contractions (right and left leg).

• Lipid Functioning: Participants indicated how capable they were of walking a flight of stairs, walking down a flight of stairs, sitting down on a chair, and standing up from a chair without pain on a 7-point scale (1=no pain, 7=unbearable pain).

• Daily Functioning: Participants indicated how capable they were of performing a variety of tasks and running activities.

• Qualitative analysis: Subjects indicated their confidence in their ability to complete thirteen running-related behaviors using 100% confidence scales (90% at all confident, 100% completely confident). Sample statements included, “I have run a 10 km race.”

CONCLUSION: Similar to previous research (e.g., Dawson et al., 2004), a regular proactive massage therapy program during training did not differentiate indices of muscle strength, pain perception, daily functioning, or running confidence.

METHODS:

Participants:

Individuals registering for 10-week running clinics at two separate Running Room locations were recruited for the study. Individuals selected their own running location. The goal of both clinics was to complete a 10 km race. Participants met two times per week for group runs to meet their weekly running targets. Injuries and injuries were excluded from the study. Individuals at one clinic were assigned to the massage group and the other group was assigned to the control group. The control group was blinded to the direct purpose of the study. Twelve control subjects (11 females, 1 male; mean age 33.3 yrs, SD=4.5) and sixteen massage subjects (11 females, 5 males; mean age 34.3 yrs, SD=8.2) took part in the study.

Measures:

• Muscle Strength: Strength was evaluated on both legs and in both of the quadriceps and hamstring muscles using an isometric and dynamic peak torque with a Cybex IIs dynamometer. One isotonic contraction completion was calculated for both the right and left leg with leg angle at 90 degrees and speed at 0 degrees/second. Three dynamic contractions were calculated for both the right and left leg with leg angle at 90 degrees and speed at 60 degrees/second. An average of the three evaluations was calculated to represent dynamic quadriceps contraction (right and left leg) and dynamic hamstring contractions (right and left leg).

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SUMMARY & CONCLUSIONS

Similar to previous research (e.g., Dawson et al., 2004), a regular proactive massage therapy program during training did not differentially affect indices of muscle strength, pain perceptions, daily functioning or running confidence. The results of the ANOVA suggest that the massage group did not change on any of these measures at a different rate than the control group. However, the results of the ANOVA demonstrate clear effects of time where pain during running and pain after running increased overtime. This is expected as the study began with vary novice and inexperienced runners. Both groups also decreased their perceptions of their running capabilities over time. This is not uncommon. Behavioral confidence is usually adjusted with mastery experiences.

Running frequency and distance were found to be minimal for all participants. As a result, both groups remained in pain from the training schedule. However, it appears that the massage group was better able to cope with and manage their pain more effectively. This apparent change gave them the means to successfully achieve their goal of completing the 10 km race. The control group struggled with completing the race.

Overall, massage therapy appeared to give the subjects more perceived control over their ability to manage pain associated with training, while not directly influencing muscle pain and functional measures per se.