

Dysmenorrhea Pilot Study

SPINAL MANIPULATION FOUND EFFECTIVE IN DECREASING MENSTRUAL PAIN

Editorial Staff

The results of a recent clinical pilot study originally conceived and developed by two National College of Chiropractic students, Katrina Kokjohn, D.C., and Della Schmid, M.S., D.C., "Pain and Prostaglandin Levels in Dysmenorrheic Women following Spinal Manipulation," indicates that menstrual pain decreased significantly for those treated by spinal manipulation.

Patricia Brennan, Ph.D., dean of research at National College of Chiropractic supervised the research team responsible for the project.

The major funding for the pilot study came from the National College of Chiropractic, with support by a grant from the Foundation for Chiropractic Education and Research (FCER), and tertiary support from the Practice Consultants Clinical Research Center, which was established by FCER through a grant from William Harris, D.C., to help foster scientific research in the profession.

While more testing is called for, this trial found that women who received chiropractic treatment, consisting of spinal manipulation, reported significant reductions in back pain and menstrual distress. A measurable reduction in the substance believed to be responsible for menstrual pain was also noted.

Each year, an estimated fifty percent of all women are affected by primary dysmenorrhea, or the presence of painful menstruation not attributed to an organic pelvic pathology.¹ 100 million work hours are lost because of primary dysmenorrhea per year.² This translates into a loss of more than \$1 billion³ annually for employers.

Standard medical treatment relieves symptoms in 80 percent of all cases, but side effects can lead to more debilitating complaints that range from dizziness and stomach distress to abdominal bleeding and stomach ulcers.

Primary dysmenorrhea is believed to be caused by prostaglandins, a group of naturally occurring fatty acids found in various tissues that induce muscle contractions. Abnormally high levels of prostaglandin found in dysmenorrheic women during the first 48 hours of their menstrual cycle are thought to cause uterine contractions that result in pain. For this reason, both perceived pain and blood levels of prostaglandins were tested in this study.

On the first day of their period, the 38 women participating in the trial received either spinal manipulation or a "sham" adjustment that did not have a therapeutic effect on the spine. The women were asked to fill out a menstrual distress questionnaire and rate their pain on a visual analogue scale, and blood was drawn and tested both 15 minutes before treatment and 60 minutes after treatment.

The results of the questionnaires showed the greatest reduction in perceived pain among the women receiving spinal manipulation when compared to the women who received sham adjustments. Visual analogue scale scores indicated that both abdominal and back pain decreased

almost twice as much in the spine manipulated group compared to the sham group. A reduction in blood levels of prostaglandins was noted in both groups that will require further investigation. Whether or not these differences are scientifically significant can only be established through additional testing.

The results of this study on dysmenorrhea were presented at the 75th annual meeting of the prestigious Federation of American Societies for Experimental Biology and Medicine, and a proposal has been submitted to the National Institute of Child Health and Human Development to obtain funding for a more comprehensive study.

Dr. Brennan cautioned against making overzealous claims from the data derived from this pilot project, given its small sampling; but the pilot data is encouraging. Dr. Brennan points to the importance of obtaining the necessary funding for a full clinical study, involving a larger patient base, and permitting researchers to study the women over a longer period of time. Dr. Brennan noted that clinical research is expensive; funding for such a project would be approximately \$100,000.

The FCER has set a fine example for chiropractic by responded to the need for clinical trials by funding six major trials at a cost of more than \$1 million. Of note are two recent studies: The Vermont study compares spinal adjustment and two accepted low back pain treatments; the Waagen study compares chiropractic treatment and standard medical treatment. While the results of the two studies will not be available until they have been published in peer-reviewed journals, the FCER has indicated that the preliminary results are encouraging.

The FCER's other significant clinical trials now under way include: chiropractic treatment of industrial injuries to the lower back; spinal adjustment compared to pharmaceutical therapy for headache pain; and the combination of spinal adjustment and exercise compared to pharmacological treatment and exercise to treat low back pain.

References

1. Calesnick B, and AM Dinan. Am. Fam. Physician, 35(1):223-225 1987.
2. Statistical Abstract of the US 1989. US Dept. of Commerce. 109th ed.
3. Lost work hours based on 1989 figures from the U.S. Department of Commerce. Hourly wages based on the Bureau of Labor statistics for August 1991 of \$10.30 per hour for production workers, excluding supervisory positions and farm payrolls.

NOVEMBER 1991