

Custom-made Orthotics as an Adjunct to Chiropractic Care: The Patient's Perspective

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INTRODUCTION: Due to the lack of literature on the effectiveness of custom-made orthotics as an adjunct to chiropractic care, a study on this subject was commissioned by Foot Levelers, Inc. The goals of the study were (1) determine what % of patients considered orthotics an effective adjunct to chiropractic care and/or were satisfied with their orthotics and (2) determine if patient satisfaction varied with demographic category.

METHODS: Chiropractors were recruited through mail advertisements promising modest inducements (one free pair of orthotics for every 10 questionnaires returned) to return completed questionnaires from consenting patients. Patient entry criteria were: age ≥ 18 years, patient verbal informed consent, wearing orthotics for ≥ 1 month, currently under chiropractic care. The type of chiropractic care was not captured, only the conditions for which the patients were being treated. Custom-made, flexible Spinal Pelvic Stabilizer (SPS) orthotics were used and fitted by scanning the feet or from foam impression casts. A 20-question questionnaire was completely sanitized before data entry to insure patient confidentiality. Data were analyzed for frequencies and means (where appropriate) using SPSS 10.0. Inter-variable analyses were conducted using SAS 8.02.

RESULTS: 527 questionnaires were received from 59 chiropractors. Demographic variables for the study are given in Table 4 and, sorted by gender, in Table 1. Table 2 gives reported regions of responders pain and Table 3 gives reported chief patient complaints. Responders had worn orthotics for means of 2.6 months for 8.6 hours/day and indicated it took 4.4 days to become accustomed to their orthotics. In efficacy-indicating questions, 92.5% indicated satisfaction with their orthotics, 88.5% indicated their orthotics were a good adjunct to their chiropractic care, 55% said they were more active with their orthotics and 88% indicated they would recommend orthotics to a friend.

DISCUSSION: Patient demographics for this study compared favorably to those reported for other chiropractic use studies. (See Tables 4 and 5). Patients also seemed to indicate a highly

positive response on efficacy-related questions. Stepwise, logistic regression showed additional correlations not pre-determined as targets in this investigation. Females tended to be more physically active and more likely to recommend orthotics to a friend if they had a positive experience with orthotics. Hours per day wearing orthotics directly correlated with increased physical activity.

Limitations to these results included possible chiropractor inexperience in research, use of a questionnaire that had been slightly modified after validation and inability to determine relative contributions of chiropractic care and orthotics (and/or the possibility of synergistic effects) in the results.

CONCLUSIONS: Despite study limitations results over a wide range of age, gender, patient complaints and reasons for orthotic prescription clearly indicate that a high percentage of responders felt that orthotics were an important, effective part of their chiropractic care and that they (the patients) felt the orthotics helped their pre-existing conditions.

Table 1 - Selected Patient Demographic Table 2 - Body Regions Representing Patient's Primary Complaint

Area of Body	Number of Responses	% of Total Responses*
Lumbar spine	222	20%
Foot	199	18%
Hip	176	16%
Knee	152	14%
Cervical Spine	115	10%
Pelvis	99	9%
Other (each < 3%)	138	13%

* - Based on 1101 responses from 527 questionnaires

Table 3 - Characteristics of Primary Complaint

Type of Problem	Responses	% of Total Responses
Knee Pain	228	17.2%
Joint Misalignment	157	11.8%
Muscle Pain	144	10.9%
Arch Pain	140	10.5%
Abnormal Posture	125	9.4%
Muscle Spasms	87	6.6%
Iliotibial band syndrome	78	5.9%
Degenerative joint disease	73	5.5%
Other	294	22.2%

Table 4 - Demographics of Studies of Chiropractic Utilization

Demographic Item	Ref 1	Ref 2	Ref 3	Ref 4	Current Study
% Female	62.5	49.9	55.4	60.3	62.5
Mean Age (years)	41.9	41.4	42.2	42.2	44.7
% White/Non-Hispanic	79.4	92.2	91.8	88.2	84.6
% Black	5.3	N/A	N/A	N/A	7.2
% Hispanic	9.1	N/A	N/A	N/A	5.5

Table 5 - Summary of Results from Patient Satisfaction Surveys of Custom-Made Orthotics

Reference	Patients in Study	% Patients Indicating Satisfaction
5	180	70%
6	81	91%
7	500	90%
8	523	83.1%
9	275	83%
Current Study	527	92.5%

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