

Spinal Hygiene and its Impact on Health and General Well Being

Cadice Shepherd, B.S., D.C.[†], Ron Kirk, B.S. Ed., M.A., D.C.^{††}

ABSTRACT

Objective: To determine if participation in a spinal hygiene class would enhance the quality of life in students engaged in a health care curriculum.

Methods: Utilizing the Rand SF-36 and Global Well-Being Scale, quality of life measurements were conducted pre and post participation on an experimental group of students taking a spinal hygiene class. Experimental group scores were compared to a nonrandomized, but matched control group of students.

Results: Students in the spinal hygiene group improved significantly across a broad spectrum of quality of life parameters,

both on the basis of pre and post class score comparison and comparison to the control group performance.

Conclusion: The practice of spinal hygiene procedures shows great promise in the vital area of improvement of quality of life. In a society where obesity and sedentary living are pandemic and spinal health is deteriorating, it is hoped that as health care practitioners these students will share and model positive spinal and neurological health behaviors to their patients and communities.

Key Words: *wellness, health promotion, quality of life, spinal hygiene*

Background

Increasingly individuals are being made aware that habits and health behaviors have central importance in determining the quality of our lives. Currently the goals the U.S. Department of Health and Human Services as delineated in Healthy People 2010, feature increasing both the quality and years of our lives as the top priority.¹ Similarly and simultaneously health care professionals are increasingly encouraging individuals to become more actively involved in their health and health care. Patient-active health care provides a conceptual base for a paradigm shift in patient management.² In this shift the doctor is viewed as an “agent,” “model,” and “teacher” of patient health empowerment, in addition to being a “provider” of health-care services.

At Life University, College of Chiropractic, spinal hygiene is taught as a participative class, designed to model and teach patient-active spinal and neurological health concepts and practices with a view to improving quality of life. The purpose of this study is to measure the impact that the spinal hygiene course has on health and general well being in a chiropractic student population.

Spinal hygiene is defined as patient-active principles and/or practices conducive to producing a healthy spinal column and nervous system and preventing vertebral subluxations. This includes: improving posture, promoting proper exercise, making healthy nutritional choices, guidance in stress reduction, ergonomics, emphasis upon the patient’s self-responsibility and appropriate professional spinal evaluation and care. The spinal hygiene class consists of a lecture, discussing the principles and practices of spinal hygiene, and a laboratory session comprised of integrative, aerobic, stretching and strengthening exercises with a postural, spinal focus. The lab also includes a short period of “relaxation response” meditation.³

Methods

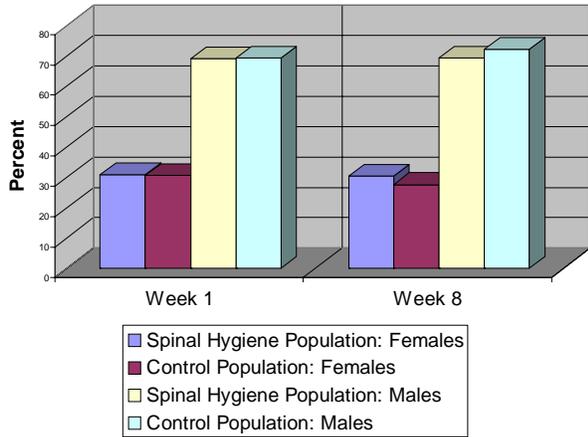
The researchers decided to use a nonrandomized, but matched subject format. The experimental group subjects were comprised of fifty adult chiropractic students, ages 18-50 years old who were enrolled in an elective Introduction to Spinal Hygiene public health course. Subjects in the control group consisted of sixty-three chiropractic students of similar ages and composition, participating in an introductory research course. None of the control group subjects had taken the spinal hygiene course.

The Rand SF-36 and the Global Well-Being Scale were chosen to measure quality of life.

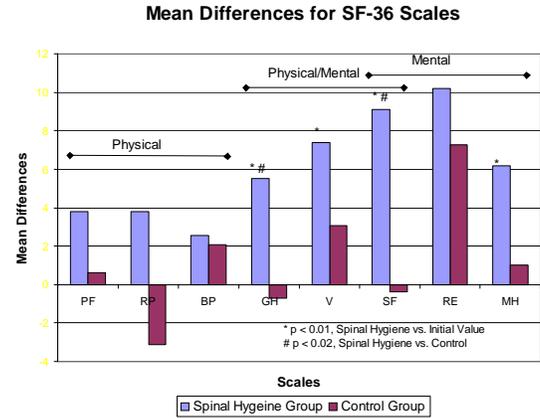
[†] Cadice Shepherd B.S., D.C. Private Practice, Marietta, GA shepmay1949@juno.com

^{††} Ron Kirk M.A., D.C. Professor, Life University College of Chiropractic, Marietta, GA , rkirk@life.edu

SF-36 Population

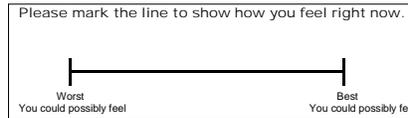


SF 36 Results



Global Well-Being Scale (GWS)

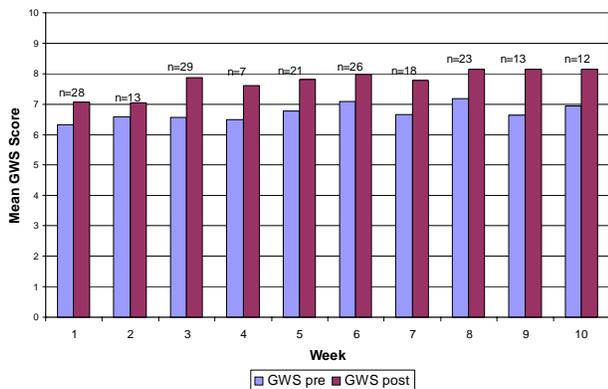
- A version of the Visual Analog Scale (VAS)



- Subject population: two spinal hygiene labs, 40 students (31 male, 9 female)
- Designed to assess immediate response to care in an individual's sense of well being.

GWS Results

Mean Global Well Being Scale Values



GWS Results

Post GWS vs Week of Study

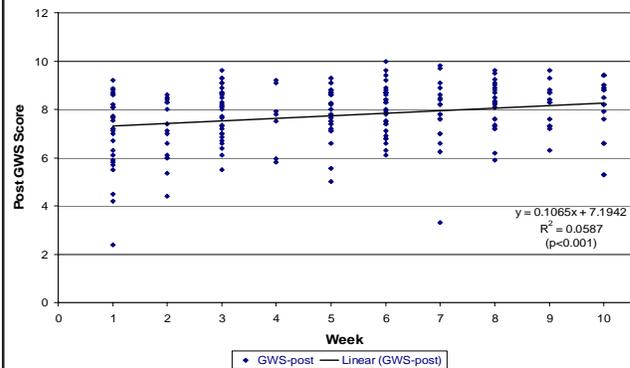


Table 1: Mean Difference In Sf-36 Health Survey Scores

Group	N	MH	RE	SF	V	GH	BP	RP	PF
SPINAL HYGIENE ...	50	6.17*	10.2*	9.11*#	7.37*	5.51*#	2.56	3.81	3.81*
CONTROL	63	1.00	7.29	-0.391	3.05	-0.703	2.06	3.13	0.625

MH, mental health; RE, role emotional; SF, social functioning; V, vitality; GH, general health; BP, bodily pain; RP, role physical; PF,

physical functioning. *p<0.01 week 1 vs. week 8 #p<0.02 spinal hygiene vs. control

The Rand SF-36 Health Survey provides information on eight health concepts (physical functioning, role physical, bodily pain, general health, vitality, social functioning, role emotional and mental health).⁴ The Global Well-Being Scale (GWBS) is a version of the Visual Analog Scale (VAS) with emphasis on well being.⁵ The Rand SF 36 was chosen because of high ratings in both validity and reliability and the Global Well-Being Scale was chosen because of ease of utilization in a laboratory setting.

All surveys were administered at Life University within a classroom environment. The Rand SF-36 Health Survey, and the Global Well-Being Scale were administered on the first and eighth weeks of the quarter to all subjects and an additional data point was taken at four weeks for those enrolled in Introduction to Spinal Hygiene Public Health Course 4107. The groups of data were analyzed to note changes within each population of students. The Global Well-Being Scale was administered pre and post exercise, during lab sessions in Spinal Hygiene Public Health Course 4107 to a sample of 40 students.

Results

The mean difference for week 8 minus week 1 is shown in Table 1 for the eight scales of the Rand SF-36 Health Survey. A positive value represents improvement in the score. Six of the eight scales demonstrate statistically significant improvement for the spinal hygiene group (p<0.01). None of the scales demonstrated statistically significant improvement for the control group. Using an analysis of variance the spinal hygiene scores were significantly better (p<0.02) than those seen in the control group for two scales (social function and general health).

The Global Well-Being Scale showed pre-class to post-class score improvement for each of the ten weeks observed. In nine of the ten weeks the improvements noted were statistically significant (p<0.05). A regression analysis of the post GWBS data showed significant improvement over the ten weeks of the study (p<0.001).

Discussion

Increasing emphasis is being placed on personal health empowerment and encouraging individuals to become more active in their lifestyles and leisure time in order to improve the quality of individuals' lives. This study indicates that participation in the Introduction to Spinal Hygiene course made a significant improvement in the quality of the participant's lives. It is interesting to note that the improvements were significant in mental, emotional, social, vitality and physical functioning parameters, adding to the growing body of literature that sup-

ports the premise that these dimensions of our selves are extensively intertwined. This study is one of an increasing number that confirms that individuals who become more active and empowered regarding their health, experience quality of life improvements across a broad array of health parameters.

Conclusion

In this study, individuals in the spinal hygiene experimental group showed improvement over a wide range of quality of life parameters utilizing both the Rand SF-36 Health Survey and the Global Well-Being Scale. It is encouraging to study the process of empowering future health care providers to become more active in their own health with the hope they will model positive health behaviors for their patients. The extent to which these doctors of chiropractic continue to maintain an increased quality of life and engage in patient-active care practices is a fertile area for future research.

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