



NUCCA Editorial

Two years ago the Board of Directors of the National Upper Cervical Chiropractic Association, Inc. (NUCCA) adopted a resolution (see MONOGRAPH Vol. 1, No. 6) which called upon the chiropractic colleges and national chiropractic associations to investigate "questionable" chiropractic techniques, currently taught, that violate relevant mechanical principles essential to the correction of, and adjustment of, vertebral subluxation misalignments. A copy of the resolution was sent to all chiropractic colleges and to the national associations, accompanied by a letter asking for its adoption. NUCCA's concern is, of course, primarily with those adjusting techniques applied to the upper cervical spine because of its osseous and neurological structure, the far-reaching effects of C-1 subluxations, and because of the fact that this spinal area is the most neglected and abused insofar as the application of corrective adjusting methods is concerned. To our knowledge, and at this writing, not one of the colleges or associations has paid much, if any, attention to the NUCCA resolution. The colleges continue to teach upper cervical techniques in which the head is used as a lever with which to attempt to replace cervical segments, to rely upon palpation to determine the direction in which to move misaligned cervical segments, and to utilize other mechanically inept methods wherein there is no precise control of either force or direction. Many chiropractors have expressed concern about the harm that can result from these inept systems. The majority of practitioners, however, are unconcerned, and this unconcern arises no doubt from the fact that these questionable methods are taught and sanctioned by the colleges. Despite this approval, and regardless of it, "adjustments" of the upper cervical spine in which force and direction are not accurately predetermined by the adjustor can

produce greater detriment to the patient, are not consistent with basic chiropractic theory, and should authoritatively be declared unethical practice.

Basic Chiropractic Theory

All chiropractic authorities seem agreed that a vertebra in a state of subluxation is accompanied by intervertebral disrelationship -- a misalignment from the normal position. While D. D. Palmer and other chiropractic writers refer to trauma, stress, emotional factors, excessive fatigue, body poisons, etc. as causes of subluxation, the fact remains that none of these factors could produce a spinal subluxation unless, and until, misalignment of the vertebral segment existed. The exciting cause must be sufficient to produce that degree of misalignment that is capable of detrimentally involving the neurological component of the vertebral segment in question.

Basic chiropractic theory postulates that a subluxated spinal vertebra must first be a misaligned vertebra, a vertebra that has lost its normal position. This fact of malposition is the sole and only reason for the act of adjusting. If a vertebra could subluxate without misaligning, adjusting it would be contra-indicated---adjusting it would be an irrational act. While the exciting cause, for example excessive fatigue, may be removed the vertebral subluxation must still be adjusted because it has become misaligned; it has become fixed in an out-of-normal relationship. To apply any force to the subluxated vertebra other than a corrective one is also an irrational act.

Reduction Pathway

It is, therefore, obvious that every subluxated vertebrae has a reduction pathway, as is the case with every other disarticulated joint in the body. It is along the reduction pathway that the forces of the adjustment must be directed if the vertebra is to be repositioned. To accomplish re-

Profiles in Chiropractic



Editor's Note: This is the sixth in the series PROFILES IN CHIROPRACTIC of NUCCA members, known for their dedicated efforts to the public they served and to the profession they chose as a life's work. NUCCA is indeed privileged to count among its members so many nationally known doctors of chiropractic whose devotion to unselfish service has marked the years of their lives. The subject of this PROFILE is Dr. John B. Clark, Corpus Christi, Texas.

Dr. John Clark's philosophy of life stems from being a Christian, and to live his daily life as a Christian. He states it succinctly: "You are the only Bible most people ever read. So if you are a Christian, try to be like one; if you are not, think hard, man, because tomorrow may never be here for you."

Born June 4th., 1910, in Moline, Illinois, John was the only son in a family of four children. Educated in Moline schools, he entered the service of his country, serving for 19 years in the Navy and Coast Guard. During World War II, he served in the Maritime Service, and attained the rank of Lieutenant Commander. Football and boxing were his favorite sports.

During World War II, Clark dove from a breakwall while in an awkward position, and shortly after the incident he developed acute rheu-

Continued on Page 7

Continued on Page 6

How to Adjust the Atlas Subluxation Complex

THIRD ADJUSTIC PHASE

(Con't from Vol. 1, No. 7)

After completing the steps of the Settleback Phase (Vol. 1, No. 6), the adjustor is positioned with his spinal column directly over line DE as depicted on the fundamental image, or frame of reference. (Vol. 1, No. 4) His episternal notch is located one inch beyond the Horizontal Resultant, represented on the fundamental image as line CA. His shoulder lever and pelvic lever are converted to a more vertical plane proportionate to his A-P foot spread. Conversion of these levers, it will be remembered, is one of the main objectives of the Settleback Phase.

OBJECTIVE OF THE TURN-IN PHASE

The main objective of the Third Adjustic Phase, or Turn-In Phase, is to position the adjustor's episternal notch directly over the patient's transverse process before taking contact and to attain this position without loss of the conversion of his pelvic and shoulder levers obtained in the Settleback Phase. The adjustor must move his spinal lever from point D on the fundamental image to point A. That is to say, the adjustor's episternal notch must be turned from the point over which he has settled back on the Horizontal Resultant to a point directly over the patient's transverse process. Further, the adjustor must accomplish the turning of his spinal lever in such a manner that the apex of his sacrum does not swing in a direction opposite to that of his spinal lever. The action is an angular rotation, a movement of the spinal column as a lever in which all parts are moving in an arc around a turning point located at the apex of the sacrum. This action may be compared to the turning of the spokes of a wheel, or the hand on a clock, wherein the apex of the sacrum is similar in its action to the movement of the point of attachment at the hub of the spoke of the wheel or the hand of the clock.

CENTERS OF MOTION

The centers of motion utilized in turning the spinal lever from the

Settleback point (D) on the Horizontal Resultant to a point directly over the patient's transverse process (A) are located in the adjustor's ankles. The adjustor performs a pivoting action down into his ankle joints by consciously twisting his leg muscles. This action rotates his episternal notch toward the patient's transverse, and in so doing prevents the apex of his sacrum from rotating in the opposite direction.

The error most commonly seen at this point in the adjusting procedure is that observed when the adjustor turns his spinal lever toward the transverse process from centers located in the lumbo-sacral joint or some other center in the lumbar spine. Not only will these centers of motion bend his spinal lever but will shorten the lever making it more difficult for the adjustor to obtain his proper position directly above the patient's transverse. As points along the spinal lever which are farthest from the axis of motion describe a longer arc than those nearest to the axis of motion, the longer the lever, the wider the excursion. This is of particular importance in subluxations involving longer resultants.

STEPS OF THE TURN-IN PHASE

Only three steps are involved in the Turn-In Phase:

1. The adjustor pivots into his ankles, using the rotator muscles of his legs to turn his episternal notch directly over the patient's transverse process, or the point of contact. The apex of the sacrum is the center of turn in the spinal lever, and the adjustor's ankles are the center of motion for turning the spinal lever over the transverse process.
2. On extremely long Horizontal Resultants, the adjustor's spinal lever may not be long enough to permit him to bring his episternal notch directly over the patient's transverse process. In such cases, the adjustor turns his spinal lever as described above and then shifts his body as a unit until his episternal notch is directly over

the patient's transverse process. This translatory action will further angulate his shoulder and pelvic levers, increasing conversion.

3. Before forming the adjustic arch with his nail hand in preparation for taking contact on the patient's transverse process (Arch Phase), the adjustor checks to see if his episternal notch is directly over the patient's transverse process.

ERRORS IN THE TURN-IN PHASE

Errors introduced into this phase arise mostly from bending the spinal lever, or column, in attempting to get over the transverse process rather than turning it as a lever from the centers of motion in the ankles. Bending the spinal lever will distort the parallel forces in the adjustment. Generally, as a result of this error, the shoulder lever is turned on a plane different from the pelvic lever. Because the shoulder and pelvic levers do not coincide at the moment of adjusting, the forces will not be parallel.

Because the greater weight of the adjustor's body is being turned toward the patient's transverse process, and away from the center of the adjustor's base of support, the error of imbalance is apt to occur. The tendency is for the adjustor's center of gravity to fall outside the base of support as he turns over the transverse process. For this reason, the adjustor must move slowly at this point of the procedure, carefully noting his weight distribution. If he finds that too great a distribution of his body weight falls on his inside foot, he must stand up and start over again, putting more weight on the outside foot. The adjustor's body weight should be about equally distributed on both feet when his episternal notch is directly over the patient's transverse process. If the adjustor's body weight is not correctly distributed when he has completed this Phase, he will not be able to perform the succeeding Phases correctly, accurately, and with ease.

(To be continued)

The Case of Troy Lang

Editor's Note: On occasion, the MONOGRAPH reports on serious and unusual cases that have responded to upper cervical chiropractic. The cancer case of Mrs. "Pat" Redman, the osteomyelitis case of Mrs. Dorothy Fischer, the bronchiectasis case of Mrs. Jean A. Sample, all medically diagnosed and treated prior to receiving chiropractic services, have been recorded in previous issues of the MONOGRAPH. In all these cases, success resulted from MAXIMAL REDUCTION OF THE MISALIGNMENTS OF THE ATLAS SUBLUXATION COMPLEX.

In this issue of the MONOGRAPH, the case of Troy Lang, El Paso, Texas, is presented. Diagnosed medically as multiple osteochondroma, Troy was adjusted only once in July of 1974. Two pictures of Troy, the first taken in November of 1973 and the second in November of 1974, about five months after his adjustment, accompany the "story" of Troy's illness as told by his mother, Mrs. Dean Lang, in the following letter:

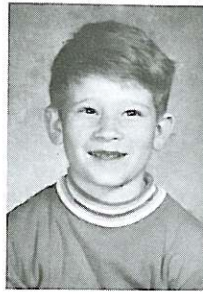
3105 Dundee
El Paso, Texas
April 9, 1975

Dr. Ralph Gregory
Monroe, Michigan

Dear Dr. Gregory,

I am writing to you to give you Troy Lang's case history. We appreciate so much that you took this case and have been so wonderful to work with him. The medical doctors had given us no hope. They said there was nothing that could be done to help him.

We first noticed hard knots on Troy's ribs when he was a baby. We took him to the doctor but he said it was normal. There seemed to be nothing more until he was 5. One day we discovered a knot on his left shoulder. We made an appointment with a pediatrician. He again told us it was nothing. Troy was very small for his age and he was always very pale. The doctor said many children are born with knots and sometimes they would begin to grow. We never did get any satisfactory answer. He said not to worry about it or point it



Troy Lang, before and after adjustment from Dr. Gregory.

out to Troy. I thought it was continuing to grow but he said not. We had him x-rayed again later and they again said it had not grown any more and for me not to be a worry-wart mother.

I began noticing him having trouble using his hands and with writing. When I examined his hands I could notice small bumps under each joint and gradually as they grew his hands began to get badly out of shape. He was beginning to have more and more trouble with his school work. He said his hands got tired. He would complain about hurting here and there. He also complained about being tired all of the time. He didn't have much energy.

We decided we must know something so I took him to a different doctor. He recommended a bone specialist. He took x-rays of Troy and said he had these growths on every bone in his body except his skull. He called the disease multiple osteochondromas which means "many tumors of the bones". He told us it was rare and there was nothing that could be done to help. He said the only thing they could do to help was to operate and cut the hard bone-like knots off when they became so large they would be bumped all the time and made bad sores. He told us to bring him back in a year.

We could see him becoming more and more crippled all the time. His legs were being affected and his left arm was not growing in comparison to the right. He was becoming more and more uneasy about himself. He could see and feel the change. He was complaining more and more about being tired and he had very little energy. He was 8½ years old and only weighed 43 lbs.

My father, at the suggestion of Mrs. Lois Newlin, contacted you about Troy's case. As busy as you are you said you would take his case. Troy's grandparents in Illinois offered to keep him so he would be closer to Michigan. When he was 8½ years old we flew him back to Illinois in July, 1974 where he would be closer to Dr. Gregory. He began making trips to Michigan and we began to see improvements soon. He has grown so much and now weighs 55 lbs. He has filled out so well and looks so much healthier. He has quit complaining about being tired and feeling bad and is full of energy now. He looks so much huskier now.

We took him back to the bone specialist in December, 1974 and he was amazed at the progress he had made. He said he had thought it would be necessary to operate in January. He said he was so much healthier looking and he had filled out so well. He said he was much more limber than before. He did not x-ray him again as he said he could tell from feeling his bones that the knots had not grown any more. We could tell he was really surprised because he had expected the condition to be so much worse by this time. He just said to bring him back again this summer for him to check again. They know there is nothing they can do but just to watch it.

Troy now seems to be like a different boy. His outlook on life is different. He has always been a happy little boy but probably never felt very well. We are so very thankful for what Dr. Gregory is doing for him.

Sincerely

A handwritten signature in cursive script that reads "Janice Lang".

Janice Lang

We, the parents of Troy Lang, give our permission for this letter or any part of it to be printed by Dr. Ralph Gregory.

A Study of Delayed Feedback and Patient-Doctor Agreement Reinforcers as they Relate to Compliance Behavior

Daniel C. Seemann
March, 1975

The Problem

A research of the literature and recommendations as to how compliance behavior might be better implemented was offered earlier for medical and related health fields. Chiropractic has similar problems with patients who have difficulty following compliance regimens. The patient is not usually acutely ill and is ambulatory.

With upper cervical practitioners the problem is perhaps more worrisome because an adjustment to the atlas vertebrae is usually undramatic. There is little sensation and no pain and, therefore, the patient is not sure that a change has been made. The healing takes longer because nerve tissue heals slower and it is difficult to explain that adjusting vertebrae has any relationship to nerve pressure.

Therefore, it is important that patients are informed the healing process takes longer and it is necessary they follow a regimen that lasts longer than at that point where they start to feel better. The patient will make a judgment "that he feels well, therefore he is well," which the doctor must be alerted to.

The president of the National Upper Cervical Chiropractic Association, who will be involved in this proposed study, has indicated that he thinks that he has about a 30 percent compliance rate which he feels is not unusually low for chiropractors.

Two of the recommendations proposed earlier regarding the use of reinforcers during the post treatment phase will be used in this study. Some patients will be given a schedule of expectations which will be called the Patient-Doctor Agreement prior to the first adjustment. Other patients will be asked to chart how they feel on an index card on a daily basis during the regimen and this will be called The Delayed Feedback Card. It is felt that both of these procedures are necessary for a successful completion of the regimen.

Statement of Purpose

The purpose of this research is to determine whether a schedule of expectations or a delayed feedback program will reinforce compliance behavior with chiropractic patients. Patients who receive a schedule of expectations will be compared with patients who are on a delayed feedback program. Both categories of patients will be compared with patients who receive both treatments and with patients who receive no treatment.

Hypothesis

Compliant behavior should be reinforced if the behavior is to be sustained at a level which is beneficial for the patient. Therefore the following hypotheses are given:

1. The Patient-Doctor Agreement used as a reinforcer will sustain a level of compliance that is greater than no inforcer.
2. The delayed feedback program as a reinforcer will sustain a level of compliance greater than no reinforcer.
3. A combination of the schedule of expectations and the delayed feedback program will sustain a level of compliance that is greater than the schedule of expectations and the delayed feedback program taken separately.

Sampling

The sample for this study are the patients of a chiropractor practicing in Monroe, Michigan. The subjects will be patients who have not received previous treatment and, therefore, new to the specialized upper cervical procedure.

The sample is simple random in that no pre-selection will take place and no particular strata of the population is being examined. Previous and current patients represent a comprehensive cross section of the population. A unique feature of the sample is that it is not restricted geographically. Patients from throughout the United States participate in treatment although the heaviest concentration of patients is from the Midwest.

Each new patient will be assigned to one of four treatment groups. This will be done on a serial basis whereby the first patient will be assigned to group 1, the second patient to group 2 etc. There will be one control group and three treatment groups. One hundred new patients will be used in the sample, 25 patients to each group.

Procedure

There will be no change in the established office procedure that currently exists with the doctor. Several preliminary tests are taken to determine nerve pressure with each patient. If it is determined pressure exists the patient is X rayed. The need for adjustment of the atlas vertebrae is determined by the X ray diagnosis. During this process a data card is kept on each patient.

If it is agreed an adjustment is required, the patient is asked to return in about one week for the adjustment. At this time the diagnosis and the X rays are discussed. Prior to the consultation, a treatment number will be assigned to the patient. The number will be assigned serially whereby every fourth new patient will be given a different treatment. During the consultation the appropriate treatment will be given, ie., (1) delayed feedback card with instruction, (2) the patient-doctor agreement, (3) a combination of both or (4) no treatment.

The regimen will last over a period of seven visits which usually are spread over three months. With treatments 1 and 3 patients, the doctor will be required to discuss the delayed feedback card each time the patient is checked.

Continued on Page 5

The Upper Cervical
MONOGRAPH
Published by
**THE NATIONAL UPPER
CERVICAL CHIROPRACTIC
ASSOCIATION, INC.**

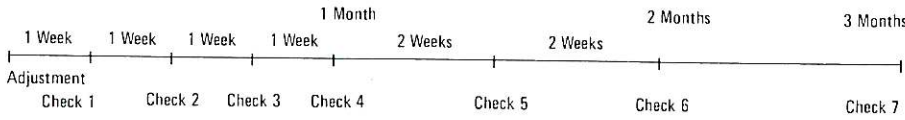
EDITOR:

Dr. Ralph R. Gregory
221 West Second Street
Monroe, Michigan 48161

Analysis of the Data

The standard for compliance in this study will be seven visits spread over

approximately a three month period. Figure 1 below gives a schematic of the compliance regimen.



**Fig. 1
COMPLIANCE PERIOD**

Since this study is interested in examining which treatment promotes the best compliance no subject will be eliminated if they fail to complete the regimen of seven checks.

The statistical design for this study will be the post test only control group design as described by

Campbell - Stanley. The design is appropriate for the analysis because there seems to be a sufficient randomization of the subjects and there is one treatment for each group of subjects. Figure 2 indicates the design for this study symbolically.

R	X	O ₀	No Treatment
R	X	O ₁	Delayed Feedback
R	X	O ₂	Patient - Doctor Agreement
R	X	O ₃	Combination 1 and 2

**Fig. 2
STATISTICAL DESIGN**

With this type of design a simple one way anova can accommodate the data. The alpha level will be set at .05. Earlier the null hypothesis was avoided but the prediction is that

$$\bar{X}_3 > \bar{X}_2 > \bar{X}_1 > \bar{X}_0$$

The two instruments that will be used in the study are the DELAYED FEEDBACK CARD and THE PATIENT-DOCTOR AGREEMENT. Both cards should be simply designed and easy to understand. Samples of the two pieces are found in the appendices.

Appendix 1

**Delayed Feedback Card
Adjustment Report**

Mark each day how you feel since you were first adjusted. Please bring this card with you each time you visit the office.

Number of Days

How Do You Feel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12													
Poor																																																								
Average																																																								
Good																																																								
Date of First Adjustment																																																								

PATIENT-DOCTOR AGREEMENT

(1) Format will be similar to the enclosed brochure about the research association.

(2) SECTION 1- will be a persuasion to follow the instructions and the patient will be asked if he is willing to do so.

SECTION 2- will be a list of the Do's and Don'ts: Avoid looking upward: Enter automobiles carefully, etc.

1. Following an adjustment, use care in moving the head; avoid looking up; avoid sudden movements.
2. Avoid looking up as in reaching above the head; raise eyes rather than the head.
3. Enter an automobile by putting the head in first, then follow with the body.
4. When lying down, do not use the head to raise the body or turn it to another position.
5. Do not permit anyone to massage the neck or to apply manipulation to the spine.
6. Do not sleep on the stomach.
7. Never put strain on the neck muscles.
8. Have a spinal checkup following any fall, jar or external force to the body.
9. Do not "pop" neck or pull on head.
10. Do not sleep while sitting in chairs, or in automobiles.
11. Sit upright in chairs, i.e., do not sit on the lower back or sacrum.
12. Do not sit in chairs that place pressure against the back of the head, forcing it forward.
13. Avoid fatigue, get sufficient rest.
14. Avoid emotional upsets.
15. Check with your chiropractor if you have colds or other febrile conditions.

SECTION 3- This section will cover as simply as possible the fact that nerve tissue heals slower and that it takes at least three months to complete the cycle.

Continued from Page 1

matic fever. The disease so severely affected him that he lost 80 pounds in two weeks; his joints became fixed in grotesque positions and he was unable to feed himself, and had to be lifted on and off the bed pan. After being told that he was going to die, Clark consented to try chiropractic. He was taken by ambulance to the office of an upper cervical chiropractic practitioner, x-rayed, and adjusted. Unconvinced that an adjustment "in the neck" could help him, he called the chiropractor a quack; but five days following that adjustment he could walk with the aid of crutches. During those five days, however, the pain in his joints kept increasing proportionate to the degree of restored joint motion. Five weeks later, Clark was back aboard his ship where he was examined by the ship's physician who, after examination, stated: "a most remarkable and unusual recovery".

Because of his experience with acute rheumatic fever, Clark became interested in upper cervical chiropractic. He obtained convalescent leave during which time he matriculated in the Palmer College of Chiropractic at Davenport, Iowa. While he did not expect to be permitted to finish, the war ended; and, as Clark puts it: "The Lord felt differently". Mrs. Clark also enrolled in the Palmer College at the same time.

During his fourth year in college, Clark was appointed to teach roentgenology at the college, and upon graduation he was given a full professorship in that department. Mrs. Clark, after graduating, receiving her degree and serving her internship in the Palmer Clinic, accepted a position as staff doctor in the Cardiovascular and Encephalograph Departments of the B.J. Palmer Research Clinic. Both doctors also conducted a joint private practice several evenings a week.

In 1949, the Clarks vacationed in Texas, and, during this vacation, decided not to renew their contracts with the Palmer College. Instead, they chose to apply for Texas licenses, move to Corpus Christi, and engage in private practice in that city. Receiving licenses to practice in Texas, the Drs. Clark have practiced in Corpus Christi to the present time. "Perhaps my most unusual case",

says Dr. Clark, "was one of multiple sclerosis. I was called in when the patient was on her death bed. She was like a bowl of jelly, could not stand, sit, or eat - had to be fed intravenously. I told the family that I did not think I could help her, but under the circumstances I would try my best. Within two years, the patient was doing her own housework, and shortly after she was not only doing sewing for her family, but was taking in sewing jobs for other people, caring for her mother-in-law, and for her husband who was invalidated by frequent heart attacks and who would not try chiropractic. The last I heard of her she was going strong several years later, having moved to live with her daughter after the death of her mother-in-law and her husband.

Dr. Clark is a member of the Chiropractic Society of Texas, and he has served the Society on its Board of Directors, a Past President-Elect, and at present is the Society's Legislative Coordinator. He is also a member of the National Upper Cervical Chiropractic Association (NUCCA), and the International Chiropractors Association. Dr. Clark is an active member of the Bible Baptist Church of Corpus Christi, a member of the Gideon International, and a Mason affiliated with the Rock Island, Illinois, Trio Blue Lodge Chapter and Commandary.

Flying, playing the organ, reading, studying, and woodworking are his current hobbies. Of woodworking, he says: "I am a very poor but determined 'do it yourselfer'".

A strong NUCCA supporter, and a valued one, Dr. Clark says: "NUCCA is the only chiropractic organization that provides proof of its system. The advantages to me of belonging to NUCCA are to avail myself of the research findings of NUCCA's companion organization, the National Upper Cervical Chiropractic Research Association, Inc. (NUCCRA), to receive further education at its conventions and seminars as well as the opportunity to have my work evaluated which is a great aid in maintaining and improving my ability in chiropractic.. My advice to any chiropractor is to learn the NUCCA techniques, because he will find that the best system of practice building is to learn to correct the vertebral subluxation. Furthermore, NUCCA people are a great bunch of people."



In Memoriam

Mrs. Clarence F. (Nell) Aumann

It is with deep regret that we learned of the death of Mrs. Nell Aumann, 105 Woodland Lane, Carmel, Indiana. A true friend of the NUCCA-NUCCRA Organizations, Mrs. Aumann worked for and contributed to their advancement and support. Endowed with a perceptive and analytical mind, great energy, and firm convictions, she pursued with vigor her several interests in life, chief among which was chiropractic.

Mrs. Aumann was active in the Womens' Auxiliary to the International Chiropractors' Association until her later years, serving on its Board of Directors. She was a charter member of the Auxiliary, and authored a book on chiropractic.

Born in Shelbyville, Indiana, she taught high school there until she became secretary to her husband, Dr. Clarence F. Aumann. She was an active member of the University Club Auxiliary.

Mrs. Aumann passed away on Friday, August 1, 1975, at the age of 82. Burial was in Forest Hill Cemetary at Shelbyville. She is survived by her husband, Dr. Clarence F. Aumann, and her daughter, Mrs. Marynelle Shields. Our heartfelt sympathy is extended to Dr. Aumann and to Mrs. Shields.

Those of us who were close friends will long remember the keenness of her intellect, her willingness to help, the warmth of her personality. She moved through life in confidence and in strength. We shall not soon forget.

Continued from Page 1

duction of the misaligned and subluxated vertebra successfully and with the least amount of force, the adjustor must have precise and accurate knowledge, before he adjusts, of the exact path of reduction. In the spinal column subjacent to the cervical spine, movement, both normal and abnormal, of the vertebral segments is controlled to a great degree by the osseous structure, the slope of the articular facets. There exists, therefore, a sort of built-in reduction pathway, and repositioning becomes a simple matter. In the upper cervical spine, the situation is entirely different. There exists very little osseous articular control between the atlas, the occiput, and the superior articulating surfaces of the axis. Additionally, greater misalignment into the orientation planes occurs in the occipital-atlanto-axial area and far greater adjustic skill is required to reduce the misalignment factors of C-1 subluxations. The effect of this lack of osseous control is that the adjustor must know, prior to the delivery of the adjustic force, how to control his force and the exact pathway along which to deliver his force. Thus the upper cervical spine is not beneficially responsive to gross and inaccurate methods of adjusting.

The predetermination of the exact reduction pathway for C-1 subluxations is, therefore, an integral part of the adjustment of C-1 subluxations. No adjustment of C-1 can result in correction of the misalignment factors that is predicated upon an inexact or insufficient prior knowledge of the reduction pathway. Because the reduction pathway must be calculated upon the basis of the number of degrees that the vertebral segments involved in the subluxation have moved abnormally into the orientation planes, any system that fails to predetermine mathematically this required information may be injurious in its application. The consequence of such systems is usually the use of excessive force, itself a traumatic experience, an increase in one or more of the misalignment factors resulting, in time, in an increased detriment to the central nervous system, increased subluxation, and increased harm to the patient.

Consequently, it is difficult to understand why chiropractic educators apparently remain unconcern-

ed, and why these "uncontrollable" systems continue to be taught. It is so simple a matter to verify whether or not any system of adjusting reduces, increases, or fails to reduce the misalignments of a vertebral subluxation. The founder of chiropractic, D.D. Palmer, stated that the purpose of the adjustment was to restore to normal the subluxated vertebrae, and in the University of Colorado's Fifth Annual Biomechanics Conference of the Spine (December 7-8, 1974) it is stated that the "essence of chiropractic is the manual re-positioning of the vertebrae". Apparently, basic chiropractic theory has not changed since D.D. Palmer's day and a review of the literature supports the notion that correction toward normal, or to normal, is the objective of the adjustment.

Neurological Integrity

Some chiropractic educators contend that they are more concerned with restoring "neurological integrity" than with achieving vertebral alignment. Statistical analysis of a random sample of 200 patients disclosed that usually the greater the reduction of C-1 subluxations, the better the prognosis. To obtain satisfactory results, according to the statistical analysis, a reduction level in the misalignment factors of at least 90 percent must be obtained. Therefore, restoring neurological integrity is a matter of obtaining vertebral alignment; that is, on the basis of statistics.

One may well ask by what methods can it be determined that obtaining neurological integrity is preferable to achieving mechanical alignment. Can one exist without the other? And, if so, for how long? The use of thermographic instrumentation to establish the presence or absence of neurological integrity following an adjustment of C-1 hardly compares with evaluation x-rays. Neither does thermographic instrumentation disclose the state of impairment of the neurological component as subtly as measurement of the objective and physical signs of C-1 subluxation on the ANATOMETER. An increase in the misalignment factors of a C-1 subluxation following a so-called adjustment has been known to show no "subluxation pattern" on a thermographic instrument for an extended period of time during which

Continued on Page 8

NUCCRA Research Report

It has been suggested to the MONOGRAPH Editor that a report on the nature and progress of research conducted by the NATIONAL UPPER CERVICAL CHIROPRACTIC RESEARCH ASSOCIATION, INC. (NUCCRA) should be included in each issue of the MONOGRAPH as a matter of general information. In response to this suggestion, the MONOGRAPH will publish research information from time to time. Any questions about NUCCRA research may be addressed to the MONOGRAPH Editor.

At the present time, the thrust of NUCCRA research is in the areas of ANATOMETER data retrieval, new concepts in cervical biomechanics, and in the development and testing of a new headpiece that will substantially assist the adjuster in reducing the misalignment factors of the Atlas Subluxation Complex (ASC).

ANATOMETER

The ANATOMETER, a research project that has been in progress for nearly four years, is designed to obtain statistical data concerning the influence of C-1 subluxation on the lumbo-sacral and pelvic areas of the spinal column; to determine through measurement the abnormal excursions of the pelvis into the lateral and transverse planes of motion and the reciprocal relationship that exists to the misalignment factors of C-1; to ascertain the physical signs that result from neurological imbalance of the central nervous system and occurring as a direct result of C-1 subluxation; to assist in correlating lumbo-pelvic distortions to the misalignment factors of C-1; to provide demonstrable evidence in physical terms that C-1 subluxations do exist and are precursors of bodily distortions; to establish proof that C-1 subluxations are detrimental to the human organism; to establish the validity of our basic upper cervical neurological rationale; to show the effectiveness, or lack of effectiveness, of an adjustment of C-1, whether or not the upper cervical adjustment was beneficial or correc-

Continued on Page 8

Continued from Page 7

the patient's health declined substantially. Obviously, before and after measurements of the physical signs that attend C-1 subluxation are the most reliable guides to the state of neurological integrity.

Conclusion

That many systems of adjusting currently taught cannot stand close examination in the light of basic chiropractic theory is evident. Also, abundantly clear is the fact that chiropractic practitioners who have been taught these questionable systems will continue to practice them until the systems have been authoritatively declared unethical practices. That these "uncontrollable" systems can prove harmful to the patient is a matter of considerable report among those who have been unfortunate enough to experience the consequences of adjustments that have been directed along the wrong reduction pathway. The dangers of "head manipulation" have been reported in medical literature complete with resulting sequelae. The MONOGRAPH (Vol. 1, No. 4) reports the case of Mrs. Jean A. Sample whose story of injury at the hands of a chiropractor using questionable methods was verified by examination and x-rays taken subsequent to her visits to this doctor. No exponent of the systems of practice that are being questioned by NUCCA can consistently demonstrate by evaluation x-rays that his system is a corrective one insofar as it reduces to or toward normal the misalignment factors of C-1 subluxations. In fact, neither can he demonstrate that his system is repeatable on successive visits of the patient because he has not mathematically established a true reduction pathway, or a plan of operation designed to correct the patient's subluxation. An upper cervical subluxation not adequately analysed cannot be correctly adjusted or consistently adjusted.

Chiropractic cannot theorize on the one hand that a subluxation is a cause of improper functioning of the nervous system, and, on the other hand, practice systems of correction of the subluxation that are so mechanically inept that it is purely accidental if any correction is obtained. Nor can chiropractic claim to be a science and permit the use of adjusting methods that are so poorly

structured that they violate the fundamental principles of mechanics, physics, and mathematics upon which the science of chiropractic must rest. Neither can a sound research program be predicated upon any such uncontrollable systems of adjusting because it is obvious that the value of chiropractic to society rests on the maximal reduction of the vertebral subluxation; therefore, its backing proof is contingent upon that fact.

Announcement



Dr. Jerry E. Carroll will be associated in practice with Dr. Ralph R. Gregory at 217 West Second Street in Monroe, Michigan. Dr. Carroll is a 1975 graduate of the National College of Chiropractic, where he was awarded the B.S. and D.C. degrees. A native of Alabama, he received his undergraduate education at Auburn University and the University of North Alabama.

While at National College, he served as a member of the student council and was elected to membership in the Delta Tau Alpha Honorary Fraternity. In addition to being a Diplomate of the National Board of Chiropractic Examiners, Dr. Carroll holds basic science certificates in the states of Iowa and South Dakota.



Continued from Page 7

tive without having to subject the patient to evaluation x-rays; to indicate on a physical basis the need for an adjustment of C-1, or the lack of such a need; to chiropractically determine the prognosis of the case, and for similar reasons.

ANATOMETER'S FUTURE

The development of nearly every new invention and its applications is highly speculative. This is certainly true of the ANATOMETER. There is nothing positive about the instrument's future at the present time, about its market potential. We who have worked with the ANATOMETER constantly over the past few years are enthusiastic concerning its research potential, about the doors it has opened and the greater insight it has provided to the solution of chiropractic problems. It may well be that there will be a wide-spread demand for the ANATOMETER in the near future, in industry for the purpose of screening people unfit for certain occupations and among those in the healing arts whose chief concern is with neuromuscular and bodily distortion problems, with spinal disorders. It may even be applicable in determining the value and validity of many chiropractic techniques. It has proved itself statistically already in some of these areas.

The point that we are stressing here, however, is that we want no concerned, interested, or other individual mislead by our enthusiasm. While we can envision a wide-spread use of the ANATOMETER in the future, we are realistic enough to know at this moment in time that the instrument could have a very limited application and market potential. We just have no way at the moment of knowing as a matter of fact if a market exists for the ANATOMETER or what that market is.

Change of Address

Many MONOGRAPH copies and other NUCCA and NUCCRA material are returned because of the subscriber's change of address. Please notify the NUCCA editor, 221 West Second Street, Monroe, Michigan 48161, of any change of address.