



NUCCA Editorial: "A Pandora's Box"

"Since your statements would appear to have opened a 'Pandora's Box' it is imperative that you supply the proof upon which you have based your statements". So writes a nationally known chiropractor in a recent letter. He is referring to statements made in the NUCCA editorial printed in the last issue of the MONOGRAPH. This editorial, based upon the resolution adopted by the NUCCA Directive Board on September 23, 1973, discussed questionable upper cervical techniques being taught and used which exercise little or no control of the adjustive force vectors and, therefore, may be dangerous procedures.

The doctor raises several issues in his letter which are frequently expressed by those doctors who do not agree with NUCCA's concepts or with NUCCA's research findings. It is for this reason that this doctor's letter is being answered in this issue of the MONOGRAPH. Other comments will be replied to later.

Proof

NUCCA agrees with the doctor that proof should be supplied in support of statements made. Backing statements with proof is an exercise too seldom indulged in. Proof, however, is the evidence which establishes the validity of an assertion. Unfortunately, proof cannot be conclusively presented in an editorial. At best, it can only be written about. To establish the proof of the statements made in the editorial requires demonstration, and demonstration is provided at the NUCCA seminars and conventions. Here the equipment is available; the evidence can be examined.

WHAT IS A "NORMAL"?

The doctor writes: "You have assumed that there is such a thing as

a normal alignment of the cervical spine." He does not dispute the issue of vertebral misalignment, but speaks of subluxations as being "considered" as "misaligned". Therefore, we need not answer the issue of whether or not misalignment is a fact or unproved notion, because the word "consider" suggests objective evaluation based on reasoning.

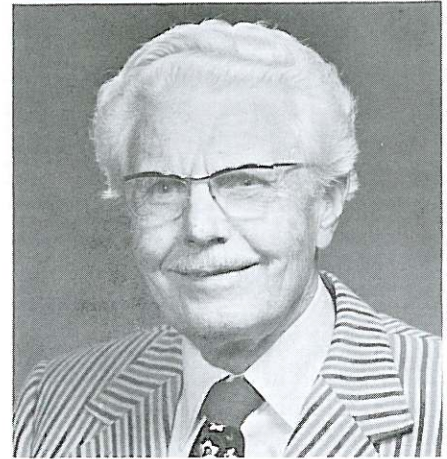
The fact that vertebrae do misalign establishes the concept that there does exist a normal; a position of alignment. "Mis-" means wrong; misalignment means wrong alignment. If there is a wrong alignment, there must be a "right" alignment. When a vertebra misaligns, some force has moved it from one position where it should have been to another position where it exists as a subluxated vertebra. Where it was positioned originally, it created no measurable evidence of neurological pathology; where it exists in a misaligned state, it does create measurable evidence of neurological pathology. The fact of measurable evidence of neurological pathology is what makes the misaligned vertebra a subluxation. Which of these two states is normal?

The literature of chiropractic from D. D. Palmer to the present day is replete with such terms as "misalignment", "displacement", "adjustment", and "correction", D. D. Palmer in his book, published in 1910, SCIENCE, ART AND PHILOSOPHY OF CHIROPRACTIC, states (on page 11) that he was the first to "replace displaced vertebrae by using the spinous and transverse processes as levers wherewith to rack subluxated vertebrae into normal position". Incidentally, it is this "replacement" premise that differentiates chiropractic from the spinal methods used for centuries by the common people of many countries. This does not constitute proof, but it does indicate intent.

There is ample evidence that the degree of misalignment does not

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Profiles in Chiropractic



Editor's Note: This is the fifth in a series of profiles of NUCCA members, known for their dedicated efforts to the public they served so well and long and to the profession they chose as a life's work. NUCCA is indeed privileged to count among its members so many of these doctors whose devotion to unselfish service has marked the years of their lives. The subject of this profile is Dr. Walter W. Krull, 1626 Arcadian Avenue, Chico, California.

"In August", states Dr. Krull, "I expect to attend the Palmer College of Chiropractic's Homecoming and receive a certificate in recognition of 50 years of chiropractic practice. I am praying that I will be able to make the trip. God willing, I will".

Dr. Krull is a victim of lymphatic sarcoma which has caused him to nearly cease practice. "The medics", says Dr. Krull, "have left me scarred, burned, and drugged. Until I met Dr. John Houtman, I was filled with pain and despair. I wanted to die. Dr. Houtman, however, convinced me that the NUCCA approach might help me. I am happy to report that I am able now to walk without my cane, gaining strength each day as well as weight, and am entirely off pain-killing drugs. Above all, I now have the will to live." (Dr. John

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"Profiles in Chiropractic"
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Houtman is a NUCCA chiropractor, practicing in Paradise, California)

Born and raised on a farm in Northern California, Dr. Krull learned early in life the value of hard work. "We raised fruit, nuts, cows, pigs, sheep, and occasionally a little hell", he recalls. "I milked cows, drove horses, cut wood, and operated a caterpillar tractor."

In 1923 Walter Krull enrolled in the Palmer College of Chiropractic. "At that time full spine adjusting, majors and minors, was the order of the day", he reports. "We spent many hours learning the art of palpation, nerve tracing, and how to deliver a recoil thrust like that of Dr. B.J. Palmer. Spinography was one of our major subjects and we learned to take x-ray pictures, develop them, and analyse them. Most of our films were taken in the prone position, using 8X10 films or 14X17 films, at a tube-to-film distance of 30 inches and on x-ray units with a capacity of 30MA-90KVP. Our films were of good quality because we used mid-speed intensifying screens, long exposures, and a low kilovoltage." Dr. Krull attributes his present malignancy to radiation over-exposure.

"During Lyceum, 1924," Dr. Krull continues, "the neurocalometer (NCM), invented by Dr. Dossa Evans and endorsed by Dr. B.J. Palmer, was introduced to the profession. This instrument was designed to locate the spinal nerves that were pinched, often referred to as the 'hot box'. Less than 25% of the profession accepted the new instrument, and within a few months the profession was divided. B.J. Palmer insisted that the NCM would solve our problems, show where to adjust, when to adjust, and when not to. The profession disagreed violently and the Palmer College nearly folded from lack of support.

"By 1935, however, after considerable research, the tide changed and the new NCM and Neurocalograph (NCGH) became more acceptable. About 1930 B.J. Palmer brought out his upper cervical theory (H-I-O) and by 1935 this theory began to be accepted."

Dr. Krull opened his first practice in a small town in Northern California. Unable to afford either x-ray equipment or an NCM, he practiced

by using "my head, my hands, and my old equipment". In 1936, he studied the Logan Basic Technique under Dr. Hugh Logan. This technique Dr. Krull practiced for several years "straightening crooked spines". Noting on his full spine x-rays that some patients had severe upper cervical subluxations which did not correct, and that these patients did not respond satisfactorily, Dr. Krull purchased a Neurocalograph. He began taking precision upper cervical x-rays. He was, however, still not satisfied with the results he obtained.

Upper cervical chiropractic was being researched at that time in the famous B.J. Palmer Clinic. Dr. Krull reports that many of the cases in the Palmer Clinic obtained "outstanding results", but the research team also "had many failures". They did, however, resolve many of the problems inherent in analysing and adjusting the upper cervical spine.

Still looking for a better system of helping his patients, Dr. Krull, about 1957, investigated the research work that was being done in Ann Arbor, Michigan which was called the Grostic Procedure. Dr. Krull affiliated himself with this procedure of taking precision x-rays, new and better methods of measuring the spinal misalignments of the atlas subluxation, and a more effective adjusting technique.

"In 1974", states Dr. Krull, "I attended the convention of the National Upper Cervical Chiropractic Association (NUCCA), and there I learned many new things about upper cervical work which I had not learned in my 17 years of study previous to that time. "Dr. Gregory", added Dr. Krull, "has added considerably to the previous teachings".

Dr. Krull feels, however, that there is much more to be investigated, researched, and learned about upper cervical chiropractic. NUCCA certainly is in agreement with that statement. One of the lessons we all can learn from Dr. Krull's long experience is to face squarely the facts of daily practice, and to constantly search for better methods by which to serve the public and the profession.

Analytical Instruments

Film analysing instruments are available to doctors using specific methods of upper cervical analysis. These are a grid-type instrument, designed in two colors, red and green, to facilitate analysis and to insure accuracy. The grid arrangement further aids in determining the axis body center relationship to the odontoid center in cases where abnormality exists, and in aligning the appropriate instruments more precisely to the atlas laterality, thereby making easier and more accurate all comparisons between various structures and establishing relationships between reference points.

These instruments have been utilized and tested by several competent film analysers. A complete set of instruments is being sold at the introductory price of \$45.00.

Sold separately, the cost of each instrument is as follows:

Cephalometer (skull divider) . .	\$20.00
Relatoscope (for determining atlas, odontoid and spinous relationships)	\$20.00
Circumscale (condyle and axis superior articulating surfaces)	\$15.00

NUCCA Scholarship Awards

It was announced at the May NUCCA Convention that the NUCCA Directive Board has authorized a scholarship grant-in-aid award of \$200.00. This sum will be paid to chiropractic students currently enrolled in a chartered college of chiropractic who submit to the MONOGRAPH editor an acceptable article pertaining to the upper cervical spine. The announcement was made by Professor Daniel C. Seemann, NUCCRA Research Advisor.

Submitted articles may deal with any aspect of the Occipital-atlanto-axial area of the cervical spine: mechanics, neurological manifestations, analyses of cervical subluxa-

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always determine the extent of neurological detriment. That is, a patient with extreme misalignment of the cervical spine may show improvement if a large percent of the misalignment is reduced. A recheck of the patient several months later may disclose that the greater percentage of the misalignment reduction has been maintained but the neurological detriment is as great as it was originally. Complete correction of the misalignments will then have to be made; that is to say, the misalignments will have to be returned to that point where there is no measurable indication of any misalignment. This indicates that there is a normal, and that the normal is that point where no misalignment is detectable through measurement. (There is a tolerance on atlas laterality of approximately $\frac{3}{4}$ of a degree below which the neurological component is not triggered into over-innervation. Over-innervation constitutes neurological pathology)

There is no joint in the human body that does not have a normal articulatory position. Why should the spinal joints be different? What evidence exists that indicates that they are different? All joints are subject to displacement by some force acting adversely upon them. Joint motion occurs into the three orientation planes of the body and around the three axes of motion. This is normal motion, as long as that motion takes place around the axes of motion which are normally positioned. When the axes of motion become displaced by trauma, motion around them must become abnormal motion, and the normal pathway of motion becomes eccentric, displaced. The particular structure following the eccentric pathway, if it becomes fixed along the pathway, constitutes misalignment. Normal position, therefore, is consistent with the concept that there does exist a normal.

The vertical axis of the body, being perpendicular to the ground and formed by the intersection of the frontal, sagittal, and transverse planes of motion, passes through the body's center of gravity. The departure (misalignment) of a vertebral segment, a spinal area, or the spinal column as a whole in relation to the vertical axis constitutes abnormal motion. Further, it sets up

a disturbance of equilibrium in the body, and gravitational forces cannot be neutralized. Only by a return to normal positioning by an adjustment that corrects the departures from the vertical axis can neutralization of gravitational forces be re-established. Thus, the measurement of gravitational forces as reflected in bodily distortions is indicative of abnormal positioning of vertebral segments and/or their normal positioning.

There are, therefore, measurable means of determining a normal, as well as an abnormal. These means are based upon x-ray measurements of the misalignment factors as disclosed by the x-ray films; upon measurement of neurological detriment from the misalignment factors as reflected in bodily distortions; upon measurement of the existence of gravitational stresses, etc. All methods point to the existence of a normal.

The doctor stated in his letter that "there never has been any proof" that a subluxation must be removed by "returning it to a so-called normal". This assertion, I believe, has been adequately answered in the above remarks. His comment that "it would be interesting to know how you have established a normal" is answered insofar as it is possible to do so without demonstration.

These measurable means of determining a normal have been subjected to tests on the ANATOMETER, and to the establishment by measurement of correlations of the physical evidence, the bodily distortions, to the misalignment factors of the atlas subluxation. Statistical evidence of the hypothesis that misalignments of the atlas must be reduced to or toward normal have been made. One system of measurement has been, and is being, correlated to another. All methods reinforce the premise that there is a normal.

X-RAY EVIDENCE OF A NORMAL

The doctor writes: "Evidently you assert that x-rays can establish a normal, and that there is a normal for every individual". As stated above, x-rays and other methods of measurement all aid in establishing a normal, and one is checked against the other. Proper x-rays of a patient should show the misalignments in all the planes of motion in which the

misalignment exists. Prior to making the above quoted statement, the doctor states: "You refer to establishing facts through evaluation (post) x-rays". After making these two statements, the doctor raises the question of patient placement for the evaluation x-rays and its reliability.

The x-ray, pre and post, can aid in establishing a normal because the skull is used as a constant, and all misalignments are related in degree to the extent that the atlas has moved from the occipital condyles into either frontal plane (laterality). It makes no difference where the head of the patient exists in space as long as all subjacent structures are aligned to it, and the head is centered to the vertical axis.

Between pre and post patient placement, one must admit that there well may be a slight difference in positioning the patient. This difference, however, will be detectable in either the lower angle or in the plane line of the atlas. Of course, a better check is to take two pre-x-rays, re-setting the patient for each, in order to decide this issue. The post x-ray will obviously show differences because the patient has been adjusted. However, the differences arising from patient placement will not be sufficient to alter the misalignment factors of the atlas subluxation, or appreciably change the resultant of adjustic force vectors that are obtained therefrom. Further, on the lateral film or the vertex film, exact duplication of patient placement is not critical. This leaves only the nasium and in this film it is critical. Even, however, if it were true that patient placement could not be duplicated, such procedures as are used are vastly preferable to palpation and other methods for determining the misalignments that are being commonly used.

Precision-aligned x-ray equipment should always be used, and self-centering devices that automatically align the patient to the central ray and the center of the film utilized. These devices not only avoid patient placement errors, but insure bilateral magnification, reducing distortion to a minimum.

CLINICAL RESULTS

"Mountains of clinical results", writes the doctor, "tend to nullify your contention" that some techniques may be "dangerous". "Those

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An Analysis of Compliance Behavior as it Relates to Medicine and Other Health Fields

Daniel C. Seemann
March, 1975

The Review of the Literature

An analysis of compliance behavior as it relates to medicine and other health fields is needed. The apparently only unanimous agreement about this specialized area is that it is not understood and that patients are not complying satisfactorily.

Estimates as to compliance by patients ranges from 4% to 100% depending on the illness and researcher. Davis reports that approximately 30% - 35% of the patients are compliant! The president of a national chiropractic group reports that only 30% of his patients are compliant. A local podiatrist claims a high compliance rate.

The problem seems to be there is no standard or agreement as to exactly what constitutes compliance. For an example, one researcher feels the standard should be if a patient fails one time in the specified procedure, the patient then would be classified as non-compliant. Other investigators have allowed as much as a 50% leeway in regimen before being classified as non-compliance.² Until agreement is reached on an operational definition of compliance over all fields, the degree of compliance will be suspect.

There has been only fair success measuring compliance. The most reliable measurement in the medical field has been urine analysis and pill count for drug treatment but there are conflicting reports as to the success of these methods depending on the investigator. The absence or presence of drugs in the urine may or may not indicate compliance. With the abundance of new drugs on the market, the problem becomes even more critical.

It has also been found that pill count by the physician or pharmacist can be quite unreliable depending on the patient. A patient only needs to wash a few pills down the drain to comply with the regimen.

Another method used to test compliance was self reports by the patients. Research revealed the patient had a tendency to rate himself more compliant than when compared to self reports with urine analysis.³ Other studies show a physician will

tend to over-rate patient compliance as well.

There have been several studies about demographic variables. The variables researched were age, sex, race, religion, marital status, social status and education level. Demographic factors alone do not seem to have a relationship with compliance. A study of a middle class group indicated 89% compliance rate, but a mild threat was introduced as part of the procedure and it was felt that perhaps a combination of variables led to such a high rate of compliance.⁴

Some researchers claim the more severe the illness the more likely the patients will comply. However there is little evidence that severity of illness is related to compliance. This seems to be true with regard to children and adults.

Compliance also seems to deter with time. The longer the chronicity the more difficult the compliant behavior. Somewhat related to the time problem is the complexity of directions given to the patient. If there is more than one regimen or the regimen is complicated, compliance becomes difficult.⁵ A patient on drug therapy program, a diet program, and a non-smoking program might be non-compliant trying to coordinate all three programs.

There has been interest in the social-psychological variables with regard to the patient's feeling about the treating physician and the illness.

The findings are again somewhat confusing about the patient's attitude toward and knowledge about an illness. The attitude studies have been primarily prescriptive in that persons who might be potential candidates for certain illnesses would alter their behavior consciously or unconsciously.⁶ The interest here is preventative medicine. If a patient's attitude about certain illness could be altered to reduce the patient's candidacy for the illness the trauma and long period of recuperation could be avoided.

Knowledge about the illness after onset seems to help with compliance according to some researchers^{7,8} although Stanfield and Sharp found it was not necessary to change a family's concept about an illness to effect a new treatment regimen.⁹

Davis studied patient-doctor relationships and found a low but significant correlation with doctors and patients who had a positive relationship. Compliance was associated with patient's expressing agreement with the doctor, attempting to seek his opinion, tension release, and giving orientation to the physician.¹⁰ There seems to be agreement in the literature about the importance of the relationship between the doctor and patient. Other variables that have been investigated are, continuity, preference for strict or authoritarian physician, doctor expectations, all of which have an effect on compliance.

There has been some work done with psychological tests in an attempt to isolate personality variables that have an association with compliant behavior. Again this direction has not proven fruitful for the investigators.

Marsten lists possible directions for future research on compliance.¹¹

1. The patient-health team relationship should be explored further. The thinking is the nurse usually spends more time with the patient and therefore could be an influence on compliance.
2. The study of fear communications as investigated by Leventhal could have some relationship with compliance.
3. Prescriptive behavior may have merit as it relates to compliance. If it can be determined that a person has a predisposition toward an illness, certain suggested behavior changes may prevent the trauma of the onset and long recovery period.
4. Another study would be to determine whether people who gradually work into an illness are more compliant than people who are thrust into an illness suddenly.

Analysis of Behavior

The study of compliance although relatively new has addressed itself to a broad range of questions over the past twenty years; measurements, demographic variables, illness variables, attitudes, patient-doctor relationship, fear communications and psychological tests. To the investigator who is interested in changing

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behavior that is compliant with the expectations of the medical team some of the research listed could not be used.

If we know that certain characteristics can not be modified behaviorally then it would be of questionable value to be concerned with this type of information. For an example, with demographic variables would it make much difference if we knew that older, Black Protestants, are the most compliant? This is true with the research that is concerned with personality traits. If we determine that a certain type of personality is more compliant what do we do with this information? We still must be concerned about those people who are non-compliant.

This rationale suggests the study of variables where behavior might be changed. The problem is to identify variables which will alter non-complaint behavior not to identify variables which are not within the power of the medical team or the patient to change. It would seem the investigation of patient-doctor relationship which would include communications would be appropriate for further analysis.

A review of the literature indicates the study of patient-medical team relationships might be productive. This would include the pre-treatment, treatment and post treatment relationships but the study of pre-treatment variables might also prove helpful in solving the problems of compliance. Regardless of the point in the spectrum that is analyzed the basic question is to find factors that will maintain compliant behavior. An analysis of the treatment phases are discussed below.

Pre-Treatment

The pre-treatment period could start very suddenly if the illness is acute or gradual if the onset is chronic but the first contact with the medical team can set the mood of the relationship. Is the nurse kind and/or understanding? Is the appointment to be made a mutual agreement? How accessible is the doctor's office? Is there sufficient parking? Is the neighborhood reasonably safe? Once in the office will the patient be seen at the appointed time? Is the office pleasant? Is there sufficient input from the nurse to the patient? Are

there time fillers such as magazines, music, T.V.?

Treatment

Once the patient gains entry into the inner chambers what happens? Does the patient wait alone in a cubicle and for how long? When the doctor comes, is he friendly? Does he rush the diagnosis? Can the patient ask questions? If there are instructions for a medical regimen are the instructions clear? Are the expectations for the patient clear? Does the doctor meet the expectations of the patient? Is the doctor sensitive?

Post Treatment

Once the regimen has been prescribed what form of feedback occurs during this period? Are there long periods between visits? Does the medical team know or care if the patient is complying? How difficult is it to get an appointment? Is the regimen unusually complicated, i.e., diet, drugs, instruction? Is the regimen realistic with regard to the patient's circumstances, family, etc.?

The purpose of this study is to analyze what seems to be happening over this three part spectrum in terms of Experimental Analysis of Behavior Concepts (EAB) and the recommended solutions using EAB concepts.

Discussion

We need to ask the question continually what is the nature of the non-compliance? What factors make patients comply? We may want to ask what is the behavior of illness? Is the state of being ill a form of punishment (not in a religious sense)? Is it aversive? Certainly it is not pleasurable. If we accept the premise that the state of illness is not pleasurable and it is a behavior then any phase of the treatment, either pre-treatment, treatment, and post treatment which is rewarding (Positively reinforced) should tend to keep the patient responding at an acceptable compliance level. On the other hand, if the treatment process further extends what already is an aversive state the patient's tendency should be to avoid or minimize the relationship between himself and the medical team.

For example, is the pre-treatment process unpleasurable? Is there a 45 minute - 1 hour wait each time to see

the doctor? Is it impossible to find a parking place? Is the patient frustrated or anxious to the point that the experience is punishment? This experience becomes especially unrewarding for chronic patients who must repeat the process many times during the regimen.

If the patient-doctor relationship is not particularly rewarding in the sense there is not a good rapport or an inadequate feedback exists between the patient and the doctor this phase of process can also be detrimental to a patient compliance. Five minute office calls and high fees can also be an unrewarding experience for a patient.

The post treatment phase or the compliance state can be the least rewarding of the three phases. Most medical regimens require doctor-patient feedback which force the patient to return to the doctor's office. If the first two phases of the treatment are unrewarding and aversive and there is little interaction between the doctor and the patient during the post treatment phase the prediction is compliant behavior during the regimen will be at a minimum.

Recommendation

It has been suggested there are factors in the three phases of the treatment process which could affect the ability of the patient to comply. It is important that careful consideration be given to each level and for this reason the writer will examine in detail the post-treatment phase of the process especially as it relates to reinforcers of compliant behavior.

Post-treatment starts with some form of communications about the regimen which is required to minimize or eliminate an illness. It may be incorrect for the doctor to assume the patient will comply with the regimen because the procedure will make the patient better. It was noted earlier that a threat was found to be successful in some cases (Kegles). Evans et al supported the point that fear communications was effective and of equal interest was, they found that positive or optimistic communications was at least as effective.¹² Reference to Skinner at this point would be appropriate where he states that for the long run, positive reinforcement is a better procedure.¹³ Fear or in this case a form of mild

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punishment would not have the longer lasting effects.

Therefore it is suggested that the initial phase of the compliance period begin with communications about the illness which are not threatening, but perhaps cautiously optimistic depending on the illness. The type of behavior required to maintain the regimen should be discussed in a style that is not confusing to the patient. If possible, a simply written schedule of expectations or list of behaviors could accompany the doctor's consultation. The consultation and written material should be presented almost as contract between the doctor and the patient.

In some cases, verbalization or written communication about the regimen might not be adequate enough to motivate the patient to comply. This could happen where the regimen is unusually complicated or certain precedent behaviors have not been satisfied prior to the actual compliance period. The patient may have to learn how to comply under supervision perhaps in a training session or a hospital setting.

Once the compliant behavior has been established then it is important the behavior be reinforced intermittently and preferably in a positive manner. This could happen in different ways. The most rewarding method for the patient is to know if the illness is stabilizing or lessening in the form of some sort of feedback. For example, with the people who have high blood pressure a knowledge that the pressure is lowering would be rewarding. Unfortunately, many feedback procedures need to be completed in the doctor's office, and if office visits are aversive to the patient, the patient will avoid the visits if possible which is at that point during the compliance period where the patient starts to feel better and no longer feels the office visit is necessary.

Another reinforcer which might be viable is the doctor or nurse telephoning the patient on an intermittent schedule to determine compliance. The call could be reinforcing to the patient and also informative to the doctor. The medical team may find this procedure as productive as making hospital rounds. There are limitations with this procedure if the patients come from a wide geograph-

ical area, an alternative to this is to send a note to patients reminding them of the necessity to comply with the agreement made between the doctor and patient.

It also is proposed the reader consider a delayed feedback program which could be used alone or in combination with the previously suggested reinforcers. The patient would be asked to chart his state of health on a daily basis between office visits in some simple manner. The patient would then present this log to the doctor for discussion purposes. The log may or may not have value for the doctor but the patient will feel he has more of a part in the treatment process. Self-report by patients in the past has not been particularly valid, but with this procedure the motivation would be different.

Summary

This paper has reviewed research findings in the field of compliance behavior as it relates to health field regimens. EAB concepts were used to describe the compliance cycle using previous case findings as a basis for discussion. It was suggested that a medical regimen when analyzed using EAB concepts is similar to other systems where certain behaviors have to be augmented and sustained. Positive reinforcers were suggested which might sustain compliant behavior.

(to be continued)

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How to Adjust the Atlas Subluxation Complex

(Con't from Vol, 1, No. 6)

SECOND ADJUSTIC PHASE

The common errors most frequently observed in the performance of the Settleback Phase are discussed in this issue. These errors should be studied in connection with the STEPS OF THE SETTLEBACK PHASE, page 4, of Vol. 1, No. 6 MONOGRAPH.

MOST COMMON ERROR

The most common error made in the Settleback Phase is when the adjustor, instead of settling back, simply bends over. As explained in step 1 in the last MONOGRAPH, and more detailedly on page 3 of the same issue (q.v.), the adjustor settles back as if along an inclined plane. This error arises because of a lack of utilization of the proper centers of motion. These centers of motion are in the adjustor's acetabula, not in his lumbo-sacral joint. The concept that the adjustor must form mentally in settling back is that of turning around a solid bar or rod which connects one acetabulum to its opposite number. This is the pelvic lever.

As the adjustor settles back, his pelvic lever is turned somewhat vertically because of his foot-spread from A-P. If he merely bends forward, there is in effect no pelvic lever because he has avoided using the correct centers of motion in each acetabulum, and has not confined the action to them. As the pelvic lever must be turned on both the horizontal and vertical planes in the successive adjustic phases, it must be consciously controlled and stabilized during the settleback phase. Consciously practiced, the performance becomes automatic.

Failure to first fix and control the pelvic lever destroys the effectiveness of the adjustment because the parallel force from the adjustor's pelvic center of gravity can not be stabilized in a parallel position with the Notch Transverse Resultant (N-T-R). Consequently, rotatory forces are introduced into the adjustment which defeat the essential purpose of adjusting along a single linear plane.

BASE-OF-SUPPORT

Another error arises when the adjustor establishes his base of support. If the adjustor spreads his

feet more laterally than in an A-P position, he defeats the objective of pelvic lever conversion. Naturally, he will feel more balanced because he established a more stable base. The greater purpose, however, has been defeated: The purpose of obtaining as much rotation of the pelvic lever into the vertical plane as is possible in the Settleback Phase. Both stability and conversion are required, but conversion must not be sacrificed in order to obtain stability. It should, therefore, be remembered that the greater the A-P distance, the more the pelvic lever will convert, provided, of course, that it is locked in and controlled (Step 2).

The parallel forces emanate at right angles from the center of the shoulder lever and from the pelvic center of gravity. Conversion of both the shoulders and the pelvis to a more vertical plane is essential in practically all subluxations, and the degree of conversion must be coplaner with the Notch-Transverse Resultant. When exact parallelism of the pelvic parallel force is not obtained with the Notch-Transverse Resultant, the adjustic force is mis-directed, and easy and non-traumatic reduction of the misalignment factors of the subluxation is impossible to accomplish.

The adjustor will become aware of errors in stance if, during the final phase of the adjustment, he has to twist his body more vertically to align himself to a line from his episternal notch to the patient's transverse process of atlas. The adjustor has a "feeling" that he is not well positioned in relation to the patient's transverse -- a feeling of awkwardness. He should reposition his base of support until he "feels" at ease before he performs the adjustment. Twisting the body also introduces rotatory forces into the adjustment.

WEIGHT DISTRIBUTION

There must be a controlled maintenance of weight distribution throughout all the phases of the adjustment. As the adjustor settles back, the tendency exists for his body weight to gravitate to the inside leg. This tendency exists because he advanced his outside or forward leg when establishing his base of support, thus in effect shortening the forward leg. Unless the adjustor is

aware of this weight transference to the inside leg, and adapts to it, his pelvic lever will twist forward on the side of the outside leg. This twisting forward will unlock the pelvic lever and cause a loss of control of the lever. The distance between the pelvic lever and shoulder lever on the side of the outside leg will become shortened, the adjustor's spine will become twisted, and his spinal vertebrae rotated. Because the spinal column must be maintained as a lever in the adjustment also, rotatory forces are again introduced into the final phase of the adjustment.

The adjustor adapts to the weight transference problem by placing greater weight on the outside or forward leg as he starts the Settleback Phase. Throughout this phase, he constantly checks to see if he is maintaining more weight on the outside leg. The checking is done by simply trying to raise the inside leg at any given moment in the procedure. If the adjustor can raise his inside leg at will, and still maintain his stability, his weight is properly transferred.

THE PIVOT PROBLEM

Associated with this error of maintaining proper balance is that of using the inside leg as a pivot around which the adjustor will perform his succeeding acts. The same error is seen when the adjustor fails to settle back maximally. The error can be detected by noting that the adjustor's inside leg and trunk form an approximate 90 degree angle. This angle should be very acute. In either case the pivoting effect of the inside leg transfers the true pivot from the base of support to the inside leg, and the greater weight has to be borne on the inside leg also. The error is corrected by remembering to settle back through the entire maximum range of motion (q.v.) and to maintain proper weight transference during settle back to the outside leg.

STABILITY

In settling back, as in several of the succeeding acts of the adjustment, maintaining stability is a source of many errors. The adjustor should check at several points in the procedure to ascertain if he is counter-balanced over his base support. As the pelvic lever rotates

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using and teaching these methods", he continues, "would have little or no results and in fact would probably have discontinued their use for that reason".

This assertion assumes that a patient who consulted a doctor from whom he received non-corrective adjustments would fail to receive any "results" which would make the doctor aware that he was utilizing the wrong approach - wrong because the patient didn't get well. Aside from the fact that patients get "well" for many reasons, there is always the question of what is meant by the word "well". Symptoms are not necessarily a reliable indication of a patient's true progress toward health when relied upon solely. Adjustments, so-called, that increase or further derange vertebral misalignments often produce changes in location of symptoms, or in the severity or lessening of severity of symptoms, so that the patient and doctor who judge progress toward health restoration on the basis of symptoms alone are often misled. This is one reason why NUCCA insists that patient recovery be correlated to the reduction of the misalignment factors and other physical and measurable factors. Such a prognostic procedure constitutes a logical basis for believing that it was the adjustment that was responsible for the recovery of the patient, not some reason other than chiropractic. It should be added that the patient can be adjusted (?) by the doctor, unintentionally, of course, so that sensory fibers are "blocked" to the extent that they are incapable of carrying sensation to the centers of interpretation. Thus, symptoms are especially unreliable as indicators of the efficacy of any chiropractic technique.

GENERAL ADJUSTING TECHNIQUES

The doctor raises a point regarding general adjusting below the cervical area. He asks: "Am I to assume you consider these methods corrective in nature?" I am not sure just what this question means. If he is asking if I find that adjustments applied below the cervical spine correct subluxations, the answer is negative. Correction of a subluxation means restoration of normal innervation. Because the atlas subluxation overly

innervates each motor unit of the spinal cord as it causes imbalance of the mechanisms of the brain stem, the only remedy is the correction of the atlas subluxation. Adjustment of a spinal segment subjacent to the atlas can not effectively reduce over-innervation from the brain stem. It is at the lower border of the brain stem that adjustic correction must be made.

The doctor asks: "What about the x-rays before and after full spine adjusting that show cervical improvement?" Certainly, the entire spinal column can be straightened by "full spine" adjusting. This is particularly true if the pelvic girdle is stabilized by shoe lifts. However, that kind of "cervical improvement" does not sufficiently reduce the misalignments of the atlas subluxation - straightening is not enough. All misalignments must be corrected in all planes, and proportionately. The atlas subluxation, because it is the precursor of pelvic imbalance neurologically by producing the spastic contracture that distorts the pelvis from its normal position makes necessary the use of some adjunct that will serve to keep in alignment the pelvic girdle. This fact emphasizes the need for a corrective atlas adjustment, because it removes the over-innervation to the motor units and the spastic contracture that imbalances the pelvis.

The final question: "What specific research have you done that proves the effects of subluxation increase or reduction on neurological components?" It would take a book to answer this question. Just let me say that the effects of atlas subluxation increase or reduction on the neurological component are physical effects that can be measured with the ANATOMETER. It can be demonstrated that neurological imbalance manifests itself in bodily distortions. This is the atlas subluxation syndrome. Changes in the misalignment factors of the atlas subluxation, whether for better or for worse, are reflected in the physical distortion factors attending such changes. Increase of the misalignment factors of the atlas subluxation causes increase in the distortion factors; decrease in the misalignment factors causes decrease in the physical distortions. Both increase and decrease can be reciprocally related to increases or decreases in either the

misalignment factors of the subluxation or in increases or decreases in the physical manifestations of the subluxation. Increase in the misalignment factors of the atlas subluxation, therefore, means increase in the detriment to the neurological components.

The doctor closes his letter by writing: "If you can supply this proof the chiropractic profession will be forced to take NUCCA's advice seriously and institute an immediate investigation of chiropractic adjusting procedures and practices". In this connection, I would point out that, in my judgment, such an investigation should be undertaken without any incumbency on NUCCA's part to supply proof. The issue has been raised, national chiropractic organizations and colleges advised, and it is an issue that goes to the question of the general good, protection of, and welfare of the public and the chiropractic profession. It would seem that some of these chiropractic institutions would share NUCCA's concern to the extent at least of making an initial investigation before some outside agency with the authority to do so decides to conduct an investigation. NUCCA, however, in its letter that accompanied the resolution that was sent to the national organizations and colleges offered any assistance it could to promote the adoption of, and carrying out of any investigation into this matter.

We wish to thank the doctor for his excellent letter. Perhaps his efforts will help to start a dialogue from which the entire profession will benefit. We thank others for their comments also; some of these will be discussed in in the next issue of the MONOGRAPH.

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more vertically, and to the extent that it does rotate more to the vertical plane, the line of gravity of the adjustor's body moves to or toward the outside leg. If the line of gravity falls outside the base of support, balance is lost. Loss of balance requires that a new base of support be established. This is frequently seen when the adjustor stands too close to the patient's transverse process and attempts to pivot his trunk to the distal end of the Horizontal Resultant and fails because he is standing too close to the patient's transverse. In this case he will be extremely unstable because his line of gravity will fall outside his base of support. Whenever the adjustor feels that he is unstable, he should always stand up, start over, and re-establish a new base of support. Attempting to adjust from an unstable base of support requires that the adjustor fight his own weight distribution and balance throughout all phases of the adjustment. This will cause him to use unnecessary force in the adjustment at the moment of delivery. Unnecessary use of force is inefficient, prevents reduction of the misalignment factors, and mis-directs the adjustive force vector from the Notch-Transverse Resultant.

"NUCCA Scholarship awards"

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tions, corrective techniques for cervical subluxations, detrimental effects of upper cervical subluxations on the human organism, etc.

All entries will be judged by the NUCCA Directive Board and by Professor Seemann. Their judgment will be final. Accepted articles become the property of the National Upper Cervical Chiropractic Association, Inc. Winners will be announced at the 1975 NUCCA Convention.

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The Case of "Pat" Redman

Editor's Note: This most unusual experience of incurable cancer responding to chiropractic indicates again the value of the correction of the upper cervical subluxation. Eighteen years after the diagnosis and prognosis were medically made, "Pat" continues to work every day, taking care of her family and assisting her husband in his office. Mrs. Redman tells her story in her own words. Mrs. Redman is a surgical nurse.

In March of 1957 I aborted some abnormal tissue, resulting from a pregnancy which began in February. The tissue was sent to a pathology laboratory where it was determined to be a Hydatiform Mole, after which a D. & C. was performed. This was followed by regular check-ups by the surgeon. Around the first of July, the tests were positive and another D. & C. was scheduled for the second week in July. On the 6th of July I began to hemorrhage and was taken to the hospital for emergency surgery. A diagnosis of Chorioepithelioma was made, followed by a complete hysterectomy.

The prognosis at this time was twenty-four hours. After passing the twenty-four period, it was extended to two weeks at the most.

One week from the date of the surgery, nitrogen mustard was administered intravenously for four days. Due to the adverse effects of the medication, it was discontinued. Three days following the cessation of the chemo-therapy, a radium implant was made. It was left in for two days at which time blood began to show in the urine and the radium was taken out. Assuming the malignancy had metastasized to the bladder, a series of tests were made. Finding that it had not invaded the bladder, the radium implant was again made. It was left in for three days at which time I had reached my maximum dose of radiation. A follow up examination was made and it was noted that the therapy thus far was ineffective.

At this time x-rays were taken of the lungs, brain and long bones and the malignancy was believed to have metastasized to each of these structures. My husband and I were informed that no further treatment could be given, and that they felt it best that we go to the home of my



parents to spend my remaining time. We were told that I would probably hemorrhage to death.

At this point we called Dr. Ralph Gregory and asked his advice concerning my condition. He expressed no hope whatsoever, but stated that, under the circumstances, he would do all he could to try and help me.

We arrived in Monroe and Dr. Gregory x-rayed and adjusted me. We stayed for three days and returned to Monroe in two weeks. At this point Dr. Gregory told us that, due to the complexity of my particular upper cervical subluxation, we would have to make arrangements to stay the full two weeks to give him the opportunity to get the misalignments under control, which we did. Dr. Gregory, after much hard work, did get the problem under control and I did progress steadily. All the medical tests for the next five years proved negative.

I have been checked regularly by Dr. Gregory since that time, and for over a period of 18 years.

Change of Address

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