An Integrative Point of View About The Regular Physical Activity Focused On Internal Sensations

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Abstract

Objective: Modern life in western society does not promote a healthy attitude with respect to the body, even when it is known that there is a metabolic demand of physical activity (PA). This lack of PA contributes to deteriorate the health, the selfimage, the social relation and the sense of the life. The aim of this work was to evaluate the changes perceived by individuals who have chosen to follow a regular personalized PA program during their leisure time, with the PA learned and practiced with an open mind attitude of acceptance and being attentive to the internal body sensations.

Methods: Active interviews, unstructured questionnaires, observation and manual therapies are habitual techniques in the professional practice of two of the authors. The people whose progress and sensations we summarized in this work, were not volunteers, but people with motivation and with some expectations with respect to the results of the professional interventions. We registered the changes, in some cases during years. These changes were evaluated theoretically from the point of view of the integrative psychotherapy (IP) (psycho-neuro-immune-endocrinology (PNIE)).

Results: The personal work with patients and clients revealed the lack of proprioception and interoception; when they learned to feel their sensations, several good results appeared. Some of the clients were dancers and athletes; also in these cases, a more attentive attitude with respect to the internal sensation was beneficial. Most of patients (having acquired a greater sensibility) had decided to take active care of themselves, following personalized programs of PA. The most common improvements were (in the patients’ words) less pain, more agility, enhanced healing and wellbeing, enhanced selfimage, better response in emotional experiences, better mood, easier learning and the development of new motor skills. We analyzed and summarized these findings.

Conclusions: The results of the scientific research and the private practice encourage the incorporation of tools that achieve the harmonization of body and mind in the “now and here”, helping to re-signify the past and face the future, from the perspective of the integrative disciplines.

Introduction

Modern life in Western Society does not promote a healthy attitude with respect to the body, even when it is known that there is a metabolic demand of physical activity (PA). This lack of PA contributes to deteriorate the health, the selfimage, the social relation and the sense of the life. “Our genetic makeup is largely shaped to support the PA patterns of primitive societies living in the Paleolithic Era, for which food/fluid procurement (and thus survival) was obligatorily linked to PA. The energy expenditure of hunter-gatherers during PA can be reached with 3-4 h/day of moderate-to-vigorous PA. Yet technological improvements over just ~350 generations (agricultural followed by industrial and, most recently, digital revolution) have led to dramatic reductions in human PA levels: ~1/3 of adults worldwide are currently
inactive, and the endemic inactivity trend starts in early
life.” Evolutionarily, human beings within Western
Culture have not had enough time to adapt their body
to the highly technological society in which we live. Education
and socialization have accustomed us to use comfort
elements, and the mass media have led us to replace these
elements with more and more modern devices without
having been able to adapt us to the previous ones (which
will have already become obsolete). Social life makes PA
unnecessary: we go work in a vehicle, work sitting for
many hours, buy food in a shop or order it by phone, and
spend leisure time indoors (often sitting for long hours in
front of some device). The sedentary lifestyle, the lack of
pure air and sunshine, and the quality of the food,
inactivate natural metabolic processes and produce
organic dysfunctions. The circadian, weekly and seasonal
rhythms no longer exist in the human’s life thanks to the
artificial lighting, the heating and the air conditioning,
and the possibility to get food and clothing throughout the
year. Survival no longer depends on natural conditions.
This does not mean that our body is no longer useful, but
its function is different. In order to keep it “fit”
(well-being) we should accomplish an “adequate” amount
of PA and re-learn to listen to their claims.

The aim of this work was to evaluate the changes
perceived by individuals who have chosen to follow a
regular personalized PA program during their leisure time,
with the PA learned and practiced with an open-mind
attitude of acceptance and being attentive to the internal
body sensations. In the first part we state some definitions
and nomenclature. Then we present the cases to be analyzed,
and the results and the discussion of the analysis.

Preliminary Concepts
Complexities of The Real Life

Our daily life, based on the bipedestation and on
having hands with opposable thumb, depends on
movement. “Movement can be defined as body parts
displacement in physical space, be it voluntary or
involuntary, where an action can be defined as consisting
of movements necessary for goal-directed activity.” When
the body is set in motion, brain centers are activated and
muscle contraction triggers cytokines release and
biochemical processes to produce enough energy to
maintain the homeostasis, producing changes in heart and
respiratory rates, and other body functions. During the
rest following the above processes, the organism
reestablishes and -if the PA is regular- an adaptation takes
place. “Physical exercise and PA refer to voluntary
movements spending more calories than a resting position,
but physical exercise is a form of PA that is specifically
planned, structured, repetitive and regular, to improve
cardiovascular-respiratory fitness, muscle power and
endurance, flexibility, agility, balance and/or body
composition.” In this work, these two terms are used
interchangeably. The performance and results of the PA
depend on several subjective factors. As it was stated by
Noakes in the case of competitive sports: “These factors
likely include the athlete's physiological state at the start of
exercise; the expected distance or duration of the intended
exercise bout; the degree of previous experience that the
athlete has, especially in the specific activity that is being
undertaken; the athlete's level of motivation, which will be
influenced by the level of external competition and the
importance the athlete ascribes to the event; and the
athlete's level of selfbelief, among many other possible
factors.” But competitive sports should be a very special
case. Following Schleip “In competitive sports the attention
is focused on achieving an external goal, and often, it also
focused on overriding internal sensations of discomfort,
tiredness, etc.” However, this attitude is similar to that
developed in the Western Society to face everyday life. It is
as if we must be in a permanent “attitude of competition”
and -of course- it does not favor the attention in the
internal sensations of the body (alerting -by means of
discomfort, pain and other sensations- about emerging or
installed changes in the body, some of them not healthy).
Clearly not all the “internal messages of the body” are
negative, but in this work we deal with negative messages
that could be listened and understood to find a solution to
the claim they make. We have to speak about stress. To
understand the stress in which we live nowadays, it is
important to understand the characteristics and
functionality of the physiological response we startup
when we interpret a situation as dangerous or adverse. The
brain was shaped to respond and care for immediate
survival, here and now, based on past experiences. The
primitive Homo Sapiens Sapiens could not leave the
answer for later or even think. But currently we cannot
solve our problems with the basic answers of flight or
fight, or even freeze. We need a great quantity of
information to understand what happens and to realize
that some problems are imaginary and a cultural product;
to be able to think, predict conflicts, draw plans and
strategies, and fulfill them. And most of these problems
have no solution. The impact is received by “the lived
body”. In phenomenology an individual is conceived as
the perspectival origin of his experiences, behaviors and
thoughts, and seen as the center of self-awareness, object-
experience and meaning bestowing; this embodied
presence in the world is coined as ‘the lived body’ after
Merleau-Ponty.

“Empirical research has shown that what is called
somatization should be divided in two categories,
i.e., presenting and functional somatization. 'Presenting'
somatization is considered as secondary to
psycho-emotional distress where in ‘functional’
somatization, the somatization itself is seen as a primary
phenomenon, typically characterized by unexplainable
symptoms. In functional somatization, the bodily distress
comes instead of the mental phenomenon of anxiety
because the individual is unable to explore his arousal and
to elaborate on it mentally using language, metaphors, or fantasies.17 Dysfunctional bodily processes involve breathing, dystonia, immunology and digestion. In particular the role of the autonomic nervous system has led to several models of psychosomatic dysfunction or trauma related disorder such as the visceral brain-body transfer,8 the polyvagal theory,9 the neurovisceral integration,8 the window of tolerance10 or more recently the preparatory set.11

**Body Awareness**

-Body awareness and bodily dissociation, often not clearly defined, are discrete but experientially linked concepts. Body awareness involves sensory awareness—the ability to identify and experience inner sensations of the body (e.g., a tight muscle) and the overall motional/physiologic state of the body (e.g., relaxed, tense). Body awareness also involves attending to bodily information in daily life, noticing bodily changes/responses to emotion and/or environment. The concept of bodily dissociation is characterized by avoidance of internal experience. Bodily dissociation has experiential aspects including normal everyday experiences, such as distraction from bodily experience; this dissociation also includes emotional disconnection—difficulty with identifying, expressing, and attending to emotion. Bodily dissociation is thought to be a protective strategy against painful memories, thoughts, or feelings and is a mechanism commonly used to cope with physical pain, and trauma.12

Mehling et al13 see body awareness as the subjective, phenomenological aspect of proprioception and interoception that enters conscious awareness and is modifiable by mental processes including attention, interpretation, appraisal, beliefs, memories, conditioning attitude, and affect. Emotions are based on arousal emerging from the body that supports homeostasis.13 For neurobiological aspects see Craig.14

Following Sze et al,16 “The concepts of response coherence and awareness of bodily sensations are central to many emotion theories. Response coherence implies that emotions organize and synchronize different response systems such that when we are in the throes of a strong emotion, our subjective, behavioral and physiological responses should track each other more closely than when we are at rest. Awareness of bodily sensations implies that information that is visceral (e.g., heart pounding) or somatic (e.g., muscle tension) in origin is critical for determining subjective emotional experience ... The construct of coherence is typically associated with a functionalist perspective: namely, that coherence across response systems is adaptive, creating optimal conditions for the organism to cope successfully with significant challenges and opportunities.”16 These authors present a statistical study in which they find that those individuals who have been trained to pay attention to their body information (especially visceral information) have greater coherence between subjective experience and visceral responses during emotional episodes. These results agree with those mentioned in Schleip et al1 and Garfinkel et al.15

Body-mind activities (BMA) are “characterized by a non-judgmental ‘mindfulness’ ... a quality of non-elaborative awareness to current experience and a quality of relating to one’s experience with an orientation of curiosity, experiential openness, and acceptance ... A variety of therapeutic approaches often categorized as mind-body approaches claim to enhance body awareness including yoga, Tai Chi, Body-Oriented Psychotherapy, mindfulness based therapies/meditation, Feldenkrais, Alexander Method, Breath Therapy, and even massage and mental training for athletic exercise and sport performance. These approaches enjoy a growing popularity in the Western world.”13

Payne and Crane-Godreau11 are putting forward a hypothesis for understanding body-mind therapies as normalizing what they call a “preparatory set”, which is basically a unitary trauma response based on muscle tone, posture, breathing, autonomic functions, motivational/ Emotional state, attentional orientation, and expectations. They hypothesize that the mechanisms of body-mind therapeutic and educational systems can be understood through the preparatory set framework. They suggest that these systems, including meditative movement, meditation, somatic education and body-oriented psychotherapies, are approaches that use interventions on the preparatory set to remedy stress and trauma. They also discuss how the preparatory set can be adaptive or maladaptive, and how the interventions above mentioned may restore an adaptive preparatory set; these concepts offer a broader view of the phenomena of stress and trauma.11

**The Myofascial Tissue**

Fascia forms a true continuity throughout our whole body. Fascia has been shown to be an important element in our posture and movement organization; it is densely innervated and receptors are responsive to manual pressure. Stimulation of these sensory receptors has been shown to lead to a lowering of sympathetic tonus as well as a change in local tissue viscosity. Additionally, smooth muscle cells have been discovered in fascia, which seem to be involved in active fascial contractility.5 The whole myofascial substrate including muscle, fascia and skin is referred as “body armor” and should be seen as an interoceptive generator. Myofascial tissue is not only our largest interoceptive organ but can react in a dysfunctional or even pathological way to endure stress as in a loaded emotional context or trauma. The characteristics of this “muscular armor” are: it stiffens the coordination of the segments of the body, reduces the postural repertoire, inhibits respiration, and diminishes the perception of what goes on in the body. “Muscle tension serves the function of selfprotection against threats as well as to mask emotions whose expression might make a person more
vulnerable. The myofascial tissue offers a unique gateway to the interoceptive brain-body pathways.

Following Simmonds, manual therapies are divided into myofascial (‘soft tissue’) and manipulative (‘joint-based’). The effects of manual therapies on the body and mood of the patients affect three variables: pain, function and ‘autonomic activation’. In particular, osteopathy (among other manual therapies) is based on the following principles: healing takes place exclusively through the organism’s intrinsic and fully self-regulatory mechanism (osteopaths do not, therefore, heal but merely optimize the conditions for this mechanism through adjustment); the mechanism information is present in the entire body, which functions as one single unit of interacting cells and organs; and the brain modulates all the physiological forces and mechanisms.

**Integrative Psychotherapy**

The epistemological framework for integrative psychotherapy (IP) (psycho-neuro-immune-endocrinology (PNIE)) includes a moderate constructivism (which considers that “reality” is not only a constructive process of our minds, but reality itself with its characteristics and it will also affect this cognition process).

From the integrative PNIE model, the factorial intermodulation and the multi-causality are taken into account to understand the psychological and physical behavior. The epistemological framework is completed with the paradigm of complexity, general system theory, general chaos theory and stress theory.

The expression of psychological conflicts occurs in conjunction with disorders at the organic level, as well as pathologies with predominantly organic symptoms are related to psychological and social disturbances. Dubourdiou posits a multidimensional view of the human being. The proposed dimensions are the following: biological, cognitive, psycho-emotional-affective, socio-ecological and transcendental. These dimensions constitute a diagnosis tool that allows to group facts and situations influencing the individual’s life, and -even when they are mutually influenced and interrelated- this classification could light relevant aspects of psychological and physical symptoms and the problematic that can cause them.

**Methods**

Active interviews, unstructured questionnaires, observation and manual therapies are habitual techniques in the professional practice of two of the authors. One of them (LM) is an osteopath, a dancer (contemporary dance), a choreographer and a yoga instructor. She thinks that “The body symptoms are a language of something that has not been expressed otherwise. Beyond punctual treatment by decompressing an area that needs movement, my task is to inquire into the true cause of that pain, helping to “reflect it” to be able to visualize how the body manifests itself and its conflicts. I emphasize the type of PA that best suits each individual”. Other author (GC) is a personal trainer and a manual therapist. He says: “I develop a program of PA based on the wishes and needs with which each of the clients arrives, guiding them to reach their goals, taking care of their bodies, discovering and solving their real needs, according to the wellness principles. One of the techniques used during training is ‘manual resistance’ which allows me, not only to provide resistance, but also to sense the muscle tone, the state of the joints and the rigidity of the whole body or of a part of it”. The people whose progress and sensations we summarized in this work, were patients of LM and clients of GC; people with motivation and with some expectations with respect to the results of the professional interventions. For osteopathy, the analyzed cases have been treated in recent years, among which we selected three to give some details as an example of the type of problems the patients have. And similarly, for physical training we give a summary of the activities done in the last few years with clients, taking two cases to be developed with more detail.

In this study, the privacy of clients and patients was preserved since neither the name nor any personal data that could identify them was revealed.

**Osteopathy Patients**

Osteopathic patients -in the case of LM- are more female (86%) than male (14%), possibly due to cultural facts (in general, females feel more comfortable being treated by a woman than by a man). Even when the largest volume of patients are adults between the ages of 31 and 59 (56%), young people also search for osteopathic treatment (25.5%). In the group of adults the diagnosis is more varied and -generally- not localized, sometimes presenting several pain focus; young people usually come for specific and localized problems. The elderly patients (18.5%) had -besides the problem by which they come to the consultation- a bodily condition more deteriorated due to the sedentary lifestyle. 81.5% of the patients came to relieve pain; among them, 7% presented no causes for pain in the specific part of the body they felt it. The rest of the patients came for other reasons, e.g., lack of mobility, dizziness, help on rehabilitation, the prescription for surgery (in some cases this could be avoided with osteopathy). In many cases of pain with a physical cause (e.g., hyperkyphosis, body decompensation due to weight gain, overtraining) there was an emotional cause that had manifested itself during treatment (79%). Almost all the patients treated have had a positive evolution solving their problem (58%); but not in all cases the complete solution has been reached (37.5%), even when changes are always manifested. In some of these cases, by solving the pain in one area, another zone began to hurt; in others -due to external compromises of the patient, the needed rest or other precaution could not be taken (see case 2); in others,
the real cause of the pain was emotional and the produced situation could not be solved by the patient (see case 3). 4.5% of the patients did not relieve the pain (because of an unforeseen situation or to the abandonment). In some of the resolved cases, patients continue to be treated because they feel well (see case 1). Several patients (23.5%) are people from performing arts (dancers, actors) due to the involvement of LM in this environment. This fact explains, in part, the great percentage of people doing regularly PA (59%) before the consultation; another important part of the patients came from yoga and other BMA; and -a few ones- from sports or gymnastics. These data are summarized in Table 1.

Selected Individual Cases (LM)

**Case 1.** Woman, 72 years old, housekeeper. She had hyperkyphosis and stiffness in the dorsolumbar hinge. The death of her husband had been recent, but -before that- she had taken care of him for many years of illness. It had been a long agony.

**Case 2.** Woman, 18 years old, dancer. She was preparing to perform an important audition. She suffered from sciatica. She has already had several episodes but the last one has been very acute. She was very scared because she could not stop training and -at the same time- if she reinforced PA, the pain grew. She felt "pressure on her spine".

**Case 3.** Woman, 43 years old, housekeeper. She had sacroiliac discomfort; she felt pain in the left hip, the left shoulder and the left foot. In the course of the year she had suffered great losses of loved relatives in tragic ways. She felt- in addition to the mentioned discomfort- her viscera inflamed, the colon constantly upset on the left side (descending colon). She practiced yoga but, when the losses began, the frequency of her practice diminished. As the visceral discomfort grew, her shoulders became tense and hurt.

Training Clients

In the cases of personalized training (oriented to wellness) the clients come for a specific topic: to lose weight, to improve the posture or to feel well-being. The proportion of men (43%) and women (57%) interested in training is similar. The carelessness of the body is common throughout the society without distinction of gender, but in last years it can be evidenced a slow awareness of the need for some physical care. The most common age for physically inactive people to require personalized training is from the age of 30, at which point the body begins to react differently and people's perspective on their "body image" also changes (in their words "youth went away"). The age distribution of GC clients is as follows: under 30: 30%, between ages of 31 and 45: 56%; only 14% of people over 45 are looking for this type of activity (in their words "it is over for me"). The major parts of the clients are people with little leisure time and with sedentary jobs (78%) (clerks -see case 5-, or professionals who work sitting all day); a few men (10%) doing strength as part of their job (see case 4); and the remaining percentage (12%) have different jobs (sellers, drivers, etc) or are retired people. The majority of the clients have not done some PA previously (73%). These data are summarized in Table 2.

### Table 1. Summary of Cases of Osteopathy (LM)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Reason for consultation</th>
<th>Evolution</th>
<th>W/emot. cause</th>
<th>PA</th>
<th>Dancers/actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>F: 86%</td>
<td>&lt;30</td>
<td>25.5% Restlessness</td>
<td>18.5%</td>
<td>Solve</td>
<td>58%</td>
<td>Y: 59%</td>
</tr>
<tr>
<td>M: 14%</td>
<td>31-59</td>
<td>56% Pain (Somat.: 7%)</td>
<td>81.5%</td>
<td>WO/solve</td>
<td>4.5%</td>
<td>N: 41%</td>
</tr>
<tr>
<td></td>
<td>&gt;60</td>
<td>18.5%</td>
<td>37.5%</td>
<td>Other</td>
<td>79%</td>
<td>23.5%</td>
</tr>
</tbody>
</table>

Notes: In “Gender” F: female, M: male. In "Reason for consultation": Somat. means no physical causes for pain. In "Evolution": Solve: The osteopathic treatment has solved the reason for consultation, WO/solve (without solve): The osteopathic treatment has solved only partially the reason for consultation, Other: other condition, see text. In “W/emot. cause” means with manifested emotional cause. In "PA": Y: patients doing regular PA before the first consultation, N: patients doing no regular PA before the first consultation.

### Table 2. Summary of Cases of Training (GC)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Reason to training</th>
<th>Job</th>
<th>Previous PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>F: 57%</td>
<td>&lt;30</td>
<td>30% Posture</td>
<td>Sedentary</td>
<td>Yes: 27% No: 73%</td>
</tr>
<tr>
<td>M: 43%</td>
<td>31-45</td>
<td>56% Weight</td>
<td>W/strength</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>&gt;46</td>
<td>14% Wellbeing</td>
<td>Other</td>
<td>12%</td>
</tr>
</tbody>
</table>

Notes: In “Gender” F: female, M: male. In "Job" Sedentary: people who work sitting almost all the day, W/strength (with strength): men doing strength as part of his job, Other: other condition, see text. In "PA": Y: patients doing regular PA before starting PA with GC, No: patients doing no regular PA before starting PA with GC.
Table 3. Some usual causes for pain

<table>
<thead>
<tr>
<th>Clear physical origin (21%)</th>
<th>Main emotional cause (79%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overtraining</td>
<td>• Death or illness of a relative</td>
</tr>
<tr>
<td>• Overweight</td>
<td>• Family problem (not fatal)</td>
</tr>
<tr>
<td>• Rheumatoid arthritis</td>
<td>• Separation / moving</td>
</tr>
<tr>
<td>• Scoliosis</td>
<td>• Wrath /anger / disgust</td>
</tr>
<tr>
<td>• Compression of vertebral disc</td>
<td>• Disagreement or problems in the job</td>
</tr>
<tr>
<td>• Osteoarthritis</td>
<td>• Lack of will or desire</td>
</tr>
<tr>
<td>• Asymmetric skull</td>
<td></td>
</tr>
<tr>
<td>• Kyphosis / lordosis</td>
<td></td>
</tr>
<tr>
<td>• Injury</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Evolution in osteopathic treatments

<table>
<thead>
<tr>
<th>NO solution (42%)</th>
<th>Solution (58%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The original pain was removed but another appeared</td>
<td>• The specific problem (reason of the consult) was disappeared</td>
</tr>
<tr>
<td>• The presence of a problem (family, job) or a requirement (presentation, audition, examination)</td>
<td>• The recommendations and care were followed</td>
</tr>
<tr>
<td>• The recommended activity was not done / the recommended care was not followed</td>
<td>• Other pain and discomfort appeared during the treatment were relieved</td>
</tr>
</tbody>
</table>

Selected Individual Cases (GC)

Case 4. Man, 32 years old, electrical technician. He has practiced martial arts since adolescence. He had a disc herniation in L3, he avoided a back surgery with osteopathic treatment when he was 23. Since then, the back pain has reappeared each time he had not enough care of his movements. Frequent PA kept his pain away. His job often required doing strength and -in his leisure time- he trained cardio and elasticity.

Case 5. Woman, 28 years old, clerk. She was trying to reduce her overweight and she was also attending to a nutritionist. The loss of weight was quick and she began to feel pain when moving. Her left foot was weak, it hurt and -for that reason- the foot twisted frequently. She remained sat almost all the day (at her job and at home), the only PA she did was long walks. When she had resolved a family problem, she was able to start taking care of herself.

Results

Each patient or client putting in professional hands their body, trusts in finding a solution or an answer for their concern. Besides the routine questions, they describe their feelings in their words, without structured interviews or questionnaires and they add their spontaneous commentaries, which reveals the degree of perception of their own bodies and of the environment (1st.-person perspective). In the osteopathy session or during the training, the patients or clients are observed from a professional point of view in order to implement a manual treatment or a program of PA, but the osteopath and the trainer are also individuals that cannot be absolutely objective (as no one can be “an objective observer studying a phenomenon”); then, from their personal point of view they have a 2nd.-person perspective about each case.

In general, osteopathic patients can identify the moment in which the pain began and verbalize the situation that give rise to the pain or discomfort: the reason for the consultation. This situation can be physical (e.g., a hit, an effort, a bad sleeping position) or psychological (e.g., a discussion, a problem, the memory of something unpleasant). Not always the reason for the consultation involves the cause of the pain, and this may not emerge easily. The main cause for pain (in LM experience) is emotional (79%). Even in the cases where the pain has a “clear physical origin” (21%), there is an emotional component behind it (a simple example is case 2: overtraining due to the pressure for an audition). Table 3 contains a brief list of causes for pain. For some patients the emotional origin was clear from the first session and, for some others, it arose after the treatment started.

In the osteopathic treatment the symptoms can be relieved in one or more sessions or not, but -as we have already told- there is always an evolution. In Table 4 we mention some causes for a solution (58%) for the “reason for consultation” as explained in the previous paragraph. When “no solution” or “other possibilities” are present (42%), the common causes for them are stated in the same table.

The Results For Cases 1, 2, and 3 Are The Following:

Case 1. She came with severe pain in the upper back. Slowly she has recovered the mobility in the rigid zones and her posture was considerably modified; her mood and life expectations were improved (she has begun to do things she had stopped doing during her husband’s illness). She learned to pay attention to her own body. She has discovered the pleasure of walking every morning. She has added other activities: gymnastics and reading courses. She did not hurt herself at all. She continued to attend the consultation to feel better.

Case 2. Changes in the distribution of PA were suggested (balancing training and rest). She slowly began to improve as she regained self-confidence. She could rely on her experience and on the training done for many years. The pain diminished, but the discomfort continued until the audition.

Case 3. The shoulder joint did not present any injury (confirmed by medical studies). It was a visceral reflex pain. At least half an hour of daily practice of yoga was suggested, but she was unable to do it regularly because of the lack of will.

The personal training revealed the lack of proprioception and interoception; when the clients learned to feel their sensations, several good results appeared. Among the GC clients, 61.5% were able to improve their sensitivity. The clients who took a compromise with their bodies were 38.5% and they
decided to take active care of themselves beyond training (following other PA or continuing with personal training), while those that did not continue training or did not follow the given recommendations (46%) might reached short time goals, but the progress could be lost over time (e.g., slimming for summer but regaining weight after it). The remaining percentage (15.5%) started training and gave up before reaching some result.

The Results For Cases 4 and 5 Are The Following:

Case 4. His body was always very tense and rigid, with a defiant attitude. He came for a possibility to relieve his back pain and the instruction was to begin doing hypopressive exercises, which have had an immediate effect. He has learned to recognize the body’s signals when he did strength affecting the lower back and how to take care against bad movements. He had an overweight problem that he was not aware of and that affected his back. In addition a diet was recommended, but he had difficulties to follow it because he tried not to be at home.

Case 5. At the beginning of the training, she presented a lack of proprioception and interoception, but during the training she has learned to concentrate in the mobilized parts of her body. The body sensations began to grow, realizing that the cause of her pain was in the leg (caudal displacement of the distal fibula) and not in the foot. When manual resistance on her left leg was done, she said “Oh! I didn't know I could feel a bone moving into my leg”; this means that she was able to feel her leg reshaping. Besides the training, she received manual therapy and, after the treatment, the pain disappeared and did not return. She learnt the importance of taking care of the whole body (not only a part of it).

The most common improvements were (in the patients’ and clients’ words) less pain, more agility, enhanced healing and wellbeing, enhanced selfimage, better response in emotional experiences, better mood, easier learning and the development of new motor skills.

Discussion

Psychology, osteopathy and wellness training share a premise: it is each person who - ultimately - manages to solve many of their problems or heals many of their ailments. Professionals of these disciplines make available to each of their clients or patients their knowledge to help their body-mind (understood as a unit) to reach the condition of well-being.

In the case of psychotherapy, the therapeutic alliance established between the psychotherapist and the patient is based on the motivation, the trust and the commitment of both parties, for the purpose of alleviating suffering and/or increasing the happiness of the patient.

The integrative psychologist will use, during therapy, his or her knowledge on: a.- paradigms of diverse psychological streams, b.- different psychoanalytic interpersonal models and affective-bonding psychotherapeutic models, c.- consultation with different medical specialists (since the PNIE orientation holds a holistic view of the individual, including intercommunication and intermodulation among different body systems), and d.- the contributions of other complementary techniques, especially the so-called BMA.

From this broad view we have tried to analyze a large number of cases of osteopathy patients and training clients, because people interested in both services have several common factors:

1.- Both services are related to motivation and movement:
   1.1.- Motivation is necessary not only to start, but also to continue the treatment or training, and implies that there is a goal to reach and there must be a constancy to continue until this goal is achieved or the goal will be changed.
   1.2.- The movement is part of both, a manual therapy (which tries - through appropriate maneuvers and touches - to facilitate or restore movement) and a sports training.

2.- Many of the patients or clients already do or want to start doing a PA, during their leisure time.

3.- The decision to initiate treatment or training is a matter of responsibility because it implies:
   3.1.- an awareness of a complaint or a signal of the body itself,
   3.2.- a commitment to reach a goal, possibly not immediately,
   3.3.- a desire, since in the cases studied here, they do not have social assistance or medical prescription for osteopathy or training (in Argentina, Social Services do not recognize osteopathy or programs of PA as part of the benefits, and physicians do not prescribe them),
   3.4.- an effort, because the patient or client has to be willing to “actively participate” in order to learn new skills/develop new tools.

The above mentioned facts for osteopathy and training, are what make them different from medical consultations. Most people consult a health professional trying to eliminate a symptom as soon as possible so they can continue with the responsibilities and / or commitments imposed by their other activities. But a symptom may be a warning of something important that could remain ignored. Generally, masking the symptoms does not favor the solution of the problem causing them. Hence the importance of learning to discover and interpret the internal signals relies on the possibility to solve the background problem.

We try now to briefly analyze the five cases presented in the previous paragraphs, according to the psychological dimensions stated above. The characteristics of clients and patients (together with our internal discussions) allow us to arrive at the following analysis:
**Case 1.** Biological: During her husband’s illness she had a generalized carelessness of her body. She began the osteopathic treatment to mitigate the pain (positive attitude). Since the pain was relieved, she started to take an active care of her body. Cognitive: During her husband’s illness, her only concern was to take care of him. After the mourning, she slowly began to worry about herself. When, from the osteopathic treatment, she stopped having pain, she added healthy and rewarding habits (walking). Psycho emotional-affective: She overcame physical and emotional pain and began to do group cultural activities (reading workshops). Socio ecological: Despite being an elderly person, she was able to face her life without falling into isolation and to generate a new lifestyle. Transcendental: She reconverted her objectives. Colophon: The over-adaptation period during her husband's illness, and the sadness after his death “weighed” on her life for many years and deformed her back as if she had carried a large backpack. She learned to listen to the body signals and to enjoy life.

**Case 2.** Biological: She overtrained and had little rest when she started preparing for the audition. The osteopathic treatment mitigated the pain but did not eliminate it. Cognitive: When the pain became more pronounced and the training for her audition preparation was at risk, she attended to osteopathy. She was able to continue training by following the osteopath’s indications, but her anxiety did not allow her to relieve the pain. Psycho emotional-affective: She felt that her professional goal depended on this audition; if she did not succeed, she would have to think about changing her profession (superimposition). Socio ecological: The profession of dancer involves exposing the body and being judged; to go on it, she had to accept to be exposed. Transcendental: She was afraid of both: to fail and to succeed in the audition, because the result would define the environment in which she would develop professionally; it would determine the direction of her life. Colophon: She was in a state of controlled anxiety, the pain that did not allow her to continue training, forced her to listen to the complaints of her body.

**Case 3.** Biological: She practiced yoga; she presented multiple pains, none of them seemed to have a physical cause (reflex pain). Cognitive: She seemed to have no tools to work on her mood; the constant fear of the possibility of new losses blocked her mind. Psycho emotional-affective: The repeated losses in her family weakened her physically, and her coping mechanisms did not work. Socio ecological: She confined herself at home, she has a generalized carelessness of her body. She began to do group cultural activities (reading workshops). Transcendental: She had lost the meaning of life (she lasted, did not live). Colophon: The emotional situation she has lived through the year was installed in herself, she could not overcome the mourning, she went to the osteopathic consultation seeking for “someone” who could help her to solve her problems.

**Case 4.** Biological: He had a bad diet, slept badly and had overweight. He did PA and his job required doing strength. He had back pain that he tried to control with the personalized training. Cognitive: He was not aware of his overweight. He did not want to be at home for long, He “needed” to do PA daily. He had a defiant attitude. Psycho emotional-affective: He used PA as an “emotional discharge” (he could not find out his internal conflicts, his overweight could be related to it). Socio ecological: Social groups purveyed him a “mood support” so he spent most of his time outside home (he wanted not to be alone with himself). Transcendental: It seemed that he had no life objectives. His goals and aspirations were reduced to have a calm family situation and a comfortable social position. Colophon: He could handle the physical part but not the emotional part of his problem. He “carried a great weight” and he did not notice it (like his physical overweight). He gained a good proprioception but he could not develop the interoception.

**Case 5.** Biological: For many years she has had a poor diet (quantity and quality) and had suffered from sleep disorders. She worked sitting for many hours and the only PA she did was long walkings. When she began the diet her body changed, she began to feel pain and lack of equilibrium, for these reasons she started to do PA. Cognitive: She had a submissive attitude, that changed when she improved her economic situation. With training, she acquired proprioception and interoception. Psycho emotional-affective: She was able to abandon bad habits she had as a result of her previous situation. The improvement of her perception allowed her to better regulate her emotions. This fact, together with a better physical image, improved her social relations. Socio ecological: She had many changes as a consequence of her new job (she greatly improved her socio-economic situation and her environment). Transcendental: In the past she had no clear objectives, she simply tolerated the situation in which she lived. Her change of lifestyle allowed her to take off from the previous situation, and to consider new goals. Colophon: The change of lifestyle was the trigger to become aware of herself and to look after her needs.

Internal body sensations promoted by manual stimulation are mainly due to the activation of the receptors in the myofascial tissue influencing all body systems. On the other hand, in training (even when manual resistance is applied) the perception of the internal sensations depends on the “conscious attention” of the client during the training session and his or her subsequent work, following the trainer indications. In both cases, the awareness of the internal sensations and of the effect of the mobilization of certain parts of the body on the mood is promoted.

In the above examples it can be seen that one of the reasons why a person chooses between osteopathy or training is the intensity of the “disabling condition” of the discomfort or pain he or she feels (pain was present in all of the examples detailed here). This intensity has a particular threshold for each person in different moments.
of his/her life and it can change suddenly. In almost all the cases studied (the given examples are particular cases), the discomfort or pain prevented or hindered him/ her from performing his/her main activity (the one that occupies most of the person's time or his/ her job) or to enjoy the leisure time and the recreational activities.

In terms of their positive effects (summarized in table 5), the usual changes observed in our patients and clients can be grouped according to the five dimensions proposed by the IP as follows: Biological dimension: it is referred to genetic predispositions; basal conducts and learned habits (food, sleep, PA, etc.), and health status. The observed changes were: less pain; better food habits; better rest; new physical skills. Cognitive dimension: it includes processing of stimuli, thoughts and beliefs, behaviors and repertoire of skills. The changes observed were: emotional awareness; improvement in proprioception and integroception; kinesthetic consciousness; improvement in learning. Psycho-emotional-affective dimension: it refers to coping mechanisms and defenses, personality, affective bonds, support network. The observed changes were: general tensions release; emotional release; better interpersonal relationships; better self-image. Socio-ecological dimension: it includes lifestyle, environmental impacts, socio-economic conditions, socio-cultural factors. The observed changes were: beginning of new activities; change to healthier lifestyle; possibility to take part of new social groups; better occupational development. Transcendental dimension: it is referred to the meaning of life, spirituality, motivations and values. The recovered vitality, the better mood and the enhanced perception make people look for a better quality of life, reinterpreting and re-signifying their past experiences (acceptance with open mind), living better "now and here" and facing the future with a positive attitude.

Conclusions

Seeking for tools to improve the care of patients and clients, we have done a bibliographic search (not included here) of statistical studies on PA and body processes, BMA, emotion regulation and other topics. Then we did a study of the evolution of real life cases in which the individuals decide to do a PA as part of their leisure time. In order to do this, we analyzed the information about the evolution of patients and clients of the authors, because the statistical studies, performed under unreal conditions, did not offer results in the direction of our interest. Volunteers in experimental studies follow pre-established guidelines obtaining results and not goals, and generally ignoring internal sensations of discomfort, tiredness, etc. Following Haggard, "Experimental studies have generally reduced voluntary action to keypresses made to instruction. This approach ignores the reasons why we perform actions. In real life, actions aim at achieving goal events in the environment."20

When a person decides to start an osteopathic treatment or a PA program, an awareness becomes evident regarding some need of the body that he/she does not want or cannot ignore. Although the message could be not understood, it is perceived that something is demanding attention and should be taken into account. The lack of internal perception and the little importance given to the motivation for PA are relevant topics in our work. We know some of the advantages of doing PA, but we cannot estimate the damages of the increasing physical inactivity to which our society tends.

The present study is very specific because it is referred and limited to a particular geographical and social context. Due to this, these results are not directly applicable under any other condition.

References


Table 5. Beneficial aspects of enhanced internal perceptions and personal compromise.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological</td>
<td>less pain; better food habits; better rest; new physical skills</td>
</tr>
<tr>
<td>Cognitive</td>
<td>emotional release; improvement in proprioception and intretoception; kinesthetic consciousness; improvement in learning.</td>
</tr>
<tr>
<td>Psycho-emotional-affectie</td>
<td>strength release; emotional awareness; better interpersonal relationships; better self-image</td>
</tr>
<tr>
<td>Socio-ecological</td>
<td>beginning of new activities; change to healthier lifestyle; possibility to take part of new social groups; better professional and work development</td>
</tr>
<tr>
<td>Transcendental</td>
<td>sense of life</td>
</tr>
</tbody>
</table>


