

An integral, positive psychology paradigm for global coherence, research, and health promotion

Steve Edwards¹

Department of Psychology,
University of Zululand
sdedward@telkomsa.net

Abstract

This study is motivated by many problems confronting planet Earth. Its goal is to promote local and global coherence, research and health. An integral theoretical, positive psychological paradigm is used to introduce HeartMath and Global Coherence Initiatives as evidence based interventions for promoting coherence, research, health and well-being. Interventions are essentially scientific advances on cardiorespiratory based methods which have been used for millennia in various wisdom, knowledge and spiritual traditions such as ancestral consciousness and reverence, Hinduism, Judaism, Buddhism, Taoism, Christianity and Islam. The article reviews research evidence in relation to psychophysiological coherence, which is characterised by a heart rhythm pattern of elevated amplitude in low frequency heart rate variability of around 0.1 Hz. This is associated with synchronisation between various physiological systems, positive emotions, athletes' "zone" experience, enhanced spirituality, effective prayer, personal, social and global coherence and health. For example, research evidence is provided for the effectiveness of an African heart breath healing method, specifically developed around the concept Shiso, an ancient isiZulu respectful (hlonipha) term for a human being, which became an acronym for Spirit (umoya), Heart (inhlizyo), Image (umcabango), Soul (umphfumulo) and Oneness (ubunye). Subsequent independent and collaborative South African research, validating various HeartMath techniques, is described. This includes an African Global Coherence Initiative Site, established on a private game reserve in Kwa-Zulu Natal, providing valuable research data, applicable to all academic fields and scientific disciplines, which is freely available for use. It is concluded that many more integral healing approaches are needed, as is collaboration between all caring stakeholder individuals, communities and countries in the world.

Keywords Integral theory, positive psychology paradigm, global coherence, health promotion

Introduction

The essential theme of this article is that an integral, positive and global psychology involving consciousness transformations, changes of heart and related actions are needed for the many problems confronting Earth. Threats of nuclear war, international terrorism, global warming, overpopulation, unemployment, poverty, illness, injustice, corruption, crime and violence seem to be the order of the day. Most people are locked into an ongoing subsistence and survival struggle, which eats up much precious energy, distorts consciousness, causes illness and exacerbates disorder. The global village desperately needs a global psychology to promote healing in the original meaning of a transformation to health, integrity and/or wholeness. This global psychology needs to represent all planetary inhabitants, in all their diversity, as individuals and members of families, groups, communities and nations. This implies sufficient consciousness, care and collaboration by contemporary humanity in their considerable geographical, historical, religious, political, economic, cultural and other diversity. It also implies comprehensive, equitable and effective approaches (WHO 2013).

An integral, positive psychology paradigm

Integral theory postulates an interrelated universe fundamentally linked through wholes or wholes that are parts of other wholes in an ongoing process of evolution and involution. These processes consist of inseparable events, observable from interior and exterior perspectives, happening moment to moment, with each moment, breath and heartbeat touching the next. An integral approach typically utilises an all quadrants, all levels (AQAL) model, which embraces interior and exterior, individual and collective quadrants or perspectives, at different levels of consciousness ranging through physical, mental and spiritual realms. Integral methodological pluralism facilitates diverse methodologies and truth claims, on any phenomenon or event (Wilber 1997/2007). In simple terms, integral methodological pluralism attempts to create a comprehensive, composite map of all maps that people have created throughout history, using the best essential features of each. A derived all quadrants, all levels (AQAL) model, including lines, states and types, continuously facilitates other new, previously hidden maps of human consciousness, while explicating individual, collective, interior and exterior quadrants

1. Steve Edwards is Emeritus Professor and Research Fellow at the University of Zululand, South Africa

Wilber (2001) instructively pointed out distinct meanings of the term 'paradigm', as originally intended by Kuhn (1962). The first refers to its usual usage as a body of theory or worldview which directs the general quest for knowledge, inquiry and/or research. This may be summarised succinctly as that typical 'do, discover and decide' sequence that characterises scientific inquiry. General and specific meanings are encompassed and integrated in the term praxis, which indicates theory driven inquiry. Positive psychology qualifies as a paradigm in both broad and specific senses of the term. As a body of theory with roots in humanistic psychology, it was pioneered by Seligman and Csikszentmihalyi (2000) to study "positive emotion, positive character and positive institutions" (Seligman 2005:410). Related scientific praxis has led to a proliferation of specific publications and a positive psychology handbook, edited by Snyder and Lopez (2002, 2009), the second edition of which features a biologically orientated chapter by HeartMath Institute researchers introducing their pioneering research on the central role of the heart in generating and sustaining positive emotions. Special focus is on such themes as the physiology of positive emotions and spirituality, the relationship between psychophysiological coherence and positive emotional states, positive emotion focusing techniques and heart-rhythm coherence feedback (McCraty, Atkinson, Tomasino, & Bradley 2009; McCraty & Rees 2009: 527-536).

The Institute of HeartMath's positive psychological paradigm developed through early studies on heart rate variability (HRV), a measure of the naturally occurring beat-to-beat changes in heart rate, which has great value as an index of adaptation, resilience and general health. HRV is generated largely by interaction between the heart and brain via neural signals flowing through the afferent (ascending) and efferent (descending) pathways of the sympathetic and parasympathetic (vagal) branches of the ANS. HeartMath researchers were instrumental in elucidating the key role of the heart, especially in relation to the vagus nerve, with its approximately 80 percent afferent (nerve cells that send signals away from the heart towards the brain) fibres. They recognised that, through its transmission of dynamic patterns of neurological, hormonal, pressure and electromagnetic information to the brain and throughout the body, the heart possesses a more extensive communication system with the brain than other organs. The pattern of the heart's rhythmic activity became the primary physiological marker, as it is the most sensitive measure of changes in emotional states. (McCraty *et al.* 2009). Research indicated that whereas negative emotions were associated with erratic, irregular, incoherent heart rhythm patterns, positive emotions produced coherent heart rhythm signatures.

From a health promotion perspective, psychophysiological coherence is associated with positive emotions such as appreciation, care and love driving the system toward increased HRV, adaptability, resilience, psychological wellbeing, energy efficiency and metabolic energy saving at the optimum resonant frequency of 0.1 hertz, or 10-second rhythm (Childre, Martin, Rozman, & McCraty 2016; McCraty & Shaffer 2015).

HeartMath techniques and tools

In line with its vision to help people establish heart based living, the HeartMath Institute has developed various techniques and tools, which have considerable evidence based, practical health and psychotherapeutic effects in immediately shifting emotional feelings in the moment these are experienced. Emphasis is placed on the awareness of energy depletion, renewal and resilience in preparing for challenges, shifting and resetting feelings after challenges and sustained reliance through regular HeartMath practice. Firstly, energy expenditure is required to better self-regulate, as techniques are practised and anchored. Adherence is facilitated by mentoring for sustaining practice and improved self-regulation. In the second phase, the process becomes less effortful, more automatic and intuitive. Finally, continued practice lifts consciousness and brings more consistent alignment with the moment to moment intuitive guidance of the deeper Self (McCraty & Zayas 2014). Specific psychophysiological coherence promoting techniques include Heart focused breathing, Quick Coherence, Freeze-Frame and Heart Lock-In (Childre & Martin 1999). Tools include emWave, emWave pro and Inner Balance (Institute of HeartMath 2014).

Heart focused breathing. Although HeartMath research revealed that positive emotions are able to drive psychophysiological coherence independently of respiration, heart focused breathing remains a practical, first step in most tools. This conscious step slows the system down and facilitates the identification and focus on a particular positive emotion.

Quick Coherence. Here attention is on heart focus, breathing and feeling. Heart focused attention is maintained on the heart area in the chest centre. While imagining the breath going in and going out through the heart area in a natural inner rhythm, a sincere positive feeling of a place, person, pet, or situation is activated, generated, cultivated, and/or remembered.

Freeze-Frame. In addition to its depth psychotherapeutic implications, freeze-frame may also be used as a one-minute technique that allows a major shift in perception. It consists of five steps. Firstly, a stressful feeling is recognised and "freeze-framed" as a static image. Secondly, heart focused breathing is practised for at least 10 seconds. Thirdly, a

positive, fun feeling or time in life is recalled and sincerely re-experienced. Fourthly, the heart is asked to provide a more efficient response to the stressful feeling and/or situation. Fifthly the heart answer is sincerely listened to.

Heart Lock-In. This involves experiencing heart at a deeper level. Firstly there is heart focus, secondly a positive feeling of love, care or appreciation for someone or context is cultivated. The feeling is maintained for five to fifteen minutes. The feeling of love or appreciation is then sent to self and/or others to provide physical, mental and spiritual regeneration.

The emWave2. When attached to a laptop computer, the instrument gives readings of heart rate, heart rate variability, time elapsed, as well as low, medium, and high levels of physiological coherence as defined above. Feedback consists of red-, blue-, and green-coloured bars with percentage indications and accompanying tones for low, medium, and high coherence levels, respectively. Further feedback is provided by a cumulative coherence graph with a demarcated area for coherence indicating the zone of optimal autonomic nervous system functioning. A feedback tone is provided when 100 coherence points accrue. The apparatus, approximately 2 × 3 inches in size, can be handheld or attached to a computer, for physiological coherence biofeedback purposes.

HeartMath research on the energetic role of the heart in transmitting dynamic patterns of electromagnetic, neurological, hormonal, pressure and emotional information through moment to moment, beat-to-beat HRV communications supports the research of Pribram and Melges (1969), Becker and Seldon (1985), and Schwartz and Russek (1997). Signal averaging techniques provided evidence of electrocardiogram (ECG) signals registered in another person's electroencephalogram (EEG) and ECG, in both physical contact and non-contact situations. Such research provides a plausible mechanism for energy exchanges between healer and client. The presence of electro-magnetic interactions within and between people have vast implications for interpersonal communication, psychotherapy, healing and future related research and praxis, which have hardly been tapped (Lynch 2014; McCraty 2003; Morris 2010; Rosch 2014).

South African research collaboration

HeartMath interventions are essentially scientific advances on cardiorespiratory based methods which have been used for millennia in various wisdom, knowledge and spiritual traditions such as ancestral consciousness and reverence, Hinduism, Judaism, Buddhism, Taoism, Christianity and Islam. For example, South African research has provided independent collaboration of HeartMath techniques. Initial research occurred without the author being aware of this institution or its techniques. In this initial research, various workshops using an African breath psychotherapeutic technique, codenamed SHISO, (Edwards 2012), which uses techniques similar to heart focussed breathing and Heart Lock-In techniques, were found to be significantly effective in improving health and spirituality perceptions as measured on standardised scales and as compared to control groups. Later studies (Edwards 2013, 2014) followed literature review of the Institute of HeartMath research library and personal and communication with Rollin McCraty, Director of Research at HeartMath. These later studies, which used the HeartMath emWave2 apparatus, provided support for the effectiveness of the HeartMath approach both independently as well as incorporating a SHISO type methodology. Further research collaboration with the HeartMath Institute led to the establishment of the African Global Coherence Initiative magnetometer on a private game reserve in Kwa-Zulu Natal. This is one of 12 to 14 monitoring systems that are planned for planet Earth, six of which are currently in operation in providing valuable data.

The SHISO approach needs specific explication as it honours a perennial form of psychology, currently practised in Africa, which has particular human, spiritual, transpersonal and communal dimensions. This is conveyed in the philosophy and practise of *ubuntu* or *umuntu umuntu ngabantu*, an *isiZulu* idiom portraying an ontological and epistemological reality of human socialisation, that 'a human becomes a person through community' or 'I am because we are', where 'we,' by extension, includes family, community, ancestors and ultimately all sentient beings. Its meaning and methodology is described below.

An African breath psychotherapeutic workshop was developed around the concept Shiso, an ancient *isiZulu* respectful (*hlonipha*) term for a human being (Doke & Vilakazi 1948), which became an acronym for a particular breath-based healing method, standing for Spirit (*Umoya*), Heart (*Inhlizyo*), Image (*Umcabango*), Soul (*Umphefumulo*) and Oneness (*Ubunye*). The workshop takes the form of five steps, one for each letter of the acronym.

Spirit. *Umoya* is invoked through dancing in a circle chanting *woza moyo* in a breath-coordinated way. If space is very limited, this can also be done in sitting or standing positions, using a cleansing and purifying technique (*ukuhlambuluko*) of continuously exhaling using diaphragmatic breathing while aspirating *woza moyo*.

Heart. An emphasis on heartfelt experience begins through standing or sitting with hands over one's heart and feeling its beat as energy, oxygen and blood are circulated.

Image. The next stage involves forming an image of the subtle energy system of the breath/soul/spirit-body.

Soul. Contemplative focus on the soul-body follows. For example, initially this can be kinaesthetically visualised as a spark at the centre of the heart, expanding into spirit permeating the entire universe.

Oneness. As consciousness expands, the experience of being breathed by universal Breath, of Spirit embodied in soul, brings awareness of the interconnected inter-being of everything, the shared, collective ground of Oneness and of the need for people of integrity (*ubuntu*) to help each other in healing the universe. This is followed by specific actions and interventions decided by the group.

The Global Coherence Initiative (GCI)

Indigenous peoples across planet Earth, have traditionally lived in a way that honours life as a deeply interconnected whole. For millennia many wisdom, knowledge and spiritual traditions, such as ancestral consciousness/reverence, Judaism, Hinduism, Buddhism, Taoism, Christianity, Islam and perennial philosophy, have recognised this interconnected non-dual reality, which is typically perceived as layered levels of consciousness involving spirit, soul, mind, body and matter, evolving in the reverse direction (Huxley 1958; Lovejoy 1936; Schuon 1984; Smith 1992; Steiner 1999; Gidley 2007; László 2007; Wilber 2007). Integral psychology honours such indigenous knowledge on the profound interconnectedness of everything, where plants, animals, humans, ancestors and all creation interdependently coexist through Spirit as source of self, community and the all.

GCI is specifically based on the HeartMath integral research approach. In addition to abovementioned research on the energetic heart, interconnectedness and the Global Consciousness Project, GCI is also grounded on various other empirical data. For example, studying global human history dating back to 1749, Alexander Tchijevsky compared the occurrence of key historical events with the occurrence of solar cycles over the same time period until 1926. In compiling the histories of 72 countries, he found that 80% of the most significant events occurred during solar maximums, which correlate with the highest periods of geomagnetic activity (McCraty & Childre 2010; McCraty & Deyhle 2015). One likely physical mechanism for interconnectedness is to be found in Schumann electromagnetic resonances in the cavity formed between the earth's surface and the conductive plasma layer of the ionosphere, which is negatively charged relative to the earth's surface. Schumann resonances directly overlap central nervous system bandwidths. For example, the 7.8 hertz hypothetical resonant frequency of planet Earth directly overlaps with the alpha bandwidth, psychophysiological coherence of 0.1 hertz and average 10 second cycle of ocean waves (McCraty, Dehle, & Childre 2012; McCraty & Deyhle 2015).

GCI was launched with a general vision of advancing global health and facilitating the shift in global consciousness from instability and discord to balance, cooperation and peace. The general postulate is the existence of dynamic, information processing exchanges between all living systems and the earth's energetic/magnetic field, allowing encoded information to be communicated subconsciously and non-locally (McCraty & Deyhle 2015; McCraty *et al.* 2012). The specific hypothesis is that human consciousness, emotions and thoughts, interacting with the earth's magnetic fields, encode globally distributed information, which positively or negatively influences all life. GCI central mission is to conduct research on the mechanisms whereby the earth's magnetic fields affect human and animal health and behaviour. This implies testing hypotheses that these fields are carriers of biologically relevant information that connects all living systems and that large numbers of people creating heart-centred states of love, compassion and/or care, will generate a mutually beneficial, coherent field environment. Further goals include determining if changes in the earth's magnetic fields occur prior to natural catastrophes such as earthquakes and tsunamis as well as human disasters such as social upheaval, unrest, and terrorist attacks. A final objective is to monitor global events to determine where GCI members' collective heart-coherent prayers, meditations, affirmations and intentions can be directed (McCraty *et al.* 2012).

GCI uses ultrasensitive magnetometers to correlate data recorded from planet Earth, the human heart, as well as with various other animal, human and geophysical data (McCraty *et al.* 2012; McCraty & Deyhle 2015). In line with the specific vision to establish personal, social and global coherence, the GCI theory of change is based on dynamic, systemic, mutually reinforcing feedback loops between individual, social and global coherence in humanity and the global field environment. In other words, it is hypothesised that as enough individuals increase their personal coherence, this can lead to increased social coherence (family, teams, organisations) and as increasing numbers of social units (families, schools, communities, etc.) become more coherently aligned, it can in turn lead to increased global coherence, all of which is facilitated through such feedback loops between humanity and the global field environment (McCraty & Dehle 2014:422).

Continuing, in depth, critical, theoretical, evaluative, evidence based research is always needed in any scientific endeavour. To date, various scientific studies, freely available on the HeartMath and GCI websites, attest to the individual, interpersonal, social and global health promotional value and research opportunities of this initiative. Relevant information can be found at this site² and another³ with the latter website especially for volunteers wishing to assist with local South African health promotion at the South African Global Coherence Initiative Monitoring Site (GCI6). Research-

ers are specifically motivated to study global coherence⁴. Live data is available.⁵ Independent and collaborative South African research has provided substantial and consistent evidence as to the effectiveness of HeartMath techniques (Edwards 2015). Any individual, group, community or nation motivated to promote planetary health and welfare can become global coherence ambassadors at no financial cost. All that is required is heart focused care. For individuals with Internet access the process is explained⁶. Click on GCI care focus, enter the global care room and either click on guided focus care (with or without music), or simply direct heart focused care wherever you feel it is needed. This is an example of a basic moral injunction for caring individuals of all cultures, creeds and countries.

Opportunities for scientific research and praxis

From a being/consciousness perspective, all knowledge disciplines are potentially involved, in that HeartMath and GCI are contemporary scientific, integrative, evidence based as well as injunctive, skilful strategies to investigate all related phenomena. This includes a mystical and/or theological perspective, that monitoring global coherence has scientific potential to reveal physical, bio-magnetic correlates of contemplation/prayer/meditation. This line of reasoning indicates potential disciplines ranging from physics and chemistry through to theology along a vertical dimension, from psychology through to sociology along the horizontal dimension, and at varying levels of traditional academic depth. More modern pure and applied disciplines such as information and communication science are all included. The major vision and mission could be either pure or applied in focus with scientific potential to promote global, international, South African and local community health and welfare, so this includes social work, nursing, etc.

A tertiary educational research example

GCI research can be undertaken autonomously or in collaboration with international or local scientific, research, health, educational and related institutions and their respective faculties, institutes and departments. Research projects could be pursued at tertiary education/university and National Research Foundation through niche area non-solicited research grants as well as departmental, masters and doctoral student funded grants. Universities, faculties and institutes could similarly research chosen projects at university, institute, faculty and departmental level. For example, university research projects at the University of Zululand, the closest tertiary educational institution to Bonamanzi Game Reserve, on which the African magnetometer is established, could examine interconnecting global information networks at various levels: physical, biochemical, interpersonal, social, spiritual and ecological. Faculty and/or departmental level research examples follow:

Arts

The largest University of Zululand Faculty, Arts, currently consists of the following departments: African Languages and Culture, Communication Science, Creative Arts, Criminal Justice, Development Studies and Anthropology, English, General Linguistics, History, Information Studies, Philosophy and Applied Ethics, Psychology, Recreation & Tourism, Social Work, Sociology. Much research and teaching in this faculty reflects the influence of indigenous knowledge systems, those local, time honoured, traditional, cultural ways of local people employing local knowledge to survive and thrive. Though local in their manifestation, indigenous knowledge systems may or may not be based on evidence or essential scientific processes. However, they are of global interest for their heuristic, creative practicality, application and contextualisation. Whether traditional, conservative, dynamic, and/or activist in intent and effect, products of such systems inevitably originate in oral communities in the absence of writing. Breath, energy, speech, song, meditative, contemplative and/or intercessory traditions form an essential and historical context for all forms of knowledge and culture (Edwards 2011). For example, while Zulu speaking cultural groupings are not necessarily representative of African or Southern African cultures in particular, the available evidence points to such similar patterns in other indigenous cultural groupings that some transferability of findings can be assumed (Edwards 2011). This is not surprising in view of obvious evidence that such traditional, indigenous knowledge, culturally embedded, local systems provided foundations for all contemporary science (Gidley 2007; Wilber 1995). The circular orientation of indigenous African communities is exhibited in their material culture and behaviour, roundness of huts, cattle byres, homesteads, diurnal rhythms of day and night and related colour symbolism in healing. Linguistically the isiZulu terms *indingiliza* and *isidingilizi* denoting circularity and/or roundness of spherical objects accentuate the emphasis on wholeness, wholesomeness and the whole, health and healing, as conveyed by such terms as *philisayo*, *philile* and *phelele* (Doke & Vilakazi 1972; Edwards 2011; Mutwa, 2003; Ngubane 1977). Pro-

2. www.Heartmath.org, www.heartmathsouthafrica.co.za, www.glcoherence.org

3. www.live4now.co.za,

4. www.heartmath.org/gci

5. www.heartmath.org/research/global-coherence/gcms-live-data.

6. www.glcoherence.org.

found interconnectedness becomes especially evident in such themes as *ubuntu* (humanity in all communal and spiritual interrelationships), *ubudlelwana*, (interconnectedness), *ukuhlangana* (coherence), *indaba* (coherent communication), *ubunhlobo* (diversity in all its relatedness), emphasis on order (*uhlelo*), balance, harmony (*ukulungiso*), dignified movement and rhythm (*isigqi*), balanced ecological relationships and, ultimately, non-dual unity (*ubunye*) (Doke & Vilakazi 1972).

In this context, GCI related research would particularly focus on the literary, philosophical, psychological, social and spiritual benefits of global coherence as perceived and interpreted in local community context. Philosophy could explore perennial intuitive revelations of interconnectedness and/or energy from quantum level, self-organising systems through nurturing care to spiritual love. Qualitative research from language and culturally orientated departments could describe and explicate indigenous theories and practices with regard to enhancing personal, social and global coherence, e.g. exploring connections between traditional Greek and Zulu concepts such as *arête* (*ubuhle*) and *hubris* (*ukudlula*). Human scientifically orientated departments could integrate research into indigenous healing, with focus on divination (*vumisa*), ancestral consciousness, non-local healing correlates and effects, the energetics of physical contact, music rhythm and dance. Collaborative research could be undertaken into human and animal emotion, psychophysiological correlates of violent unrest as well as peaceful spirituality, psychophysiological and social programs for persons with HIV/AIDS and the effects of various forms of music and dance on emotional, social and global coherence.

Commerce

University of Zululand Commerce Faculty presently consists of the following departments: Department of Accounting (including Information Technology), Department of Business Management, Department of Economics, Department of Industrial Psychology (incorporating Human Resources Management), Department of Public Administration and Political Science, and the Law Departments (Private law, Public Law, and Mercantile Law). Although GCI is in its infancy, its cosmic and international nature have legal, political and economic implications that could well require much future research, for example, legal research involving copyright and plagiarism issues with regard to HeartMath Institute tools and techniques, as well as actuarial, economic, political and human resource research required to manage local university staff, GCI monitoring sites, website maintenance, research library, increased research production and burgeoning costs and sales.

Education

Vast educational research opportunities exist with regard to development, instruction and evaluation of HeartMath and GCI programs. In line with the mission to research and explore science-based solutions to health and wellness issues and developing strategies to help increase personal, social and global coherence, the free availability of research publications and data on HeartMath and GCI websites⁷ are encouragingly facilitative. Educational staff typically carry large teaching loads. In-service training could include an online personal resilience building course⁸ both for developing personal resilience and student instruction (Institute of HeartMath 2014). Further studies could involve evidence based research and evaluation of the effectiveness of various HeartMath coherence, biofeedback, health and education programmes for general test, stress and anxiety management from preschool through to tertiary educational level. Other research could target specific programmes for attention deficit hyperactivity disorder, music and/or mathematics performance, learning within a prison environment and education for social justice.

Science

At present the University of Zululand Science Faculty consists of the following departments: Agriculture, Biochemistry and Microbiology, Biokinetics and Sport Science, Botany, Chemistry, Computer Science, Consumer Sciences, Geography and Environmental Studies, Hydrology, Mathematical Sciences, Nursing Science, Physics and Engineering, Zoology and Science Access Department. The Faculty, either alone or in collaboration with other faculties, could conduct interconnectivity research to investigate correlational and/or causative effects of cosmic, solar and geomagnetic activity on plant life and animal health and behaviour; Physics, Agriculture, Hydrology and Botany could work on rainfall patterns, agricultural activity and plant life; Mathematics, Geography and Environmental Studies could provide data on sunspot and magnetic storm activity; Zoology on selected animal behavior; Biokinetics and Nursing Science on assessment and analysis of heart rate variability and coherent heart rhythmic patterns associated with physical activity, ranging from ordinary daily tasks to elite sports performance, chronobiology and geophysical presence of atmospheric negative ions; Biochemistry

7. www.Heartmath.org and www.glcoherence.org

8. www.heartmathsouthafrica.co.za

and Microbiology could evaluate immune and hormonal systems in terms of cortisol, dehydroepiandrosterone (DHEA) and micro-organismic activity.

Conclusion

The goal of this paper was to review the HeartMath and Global Coherence Initiative as an integral, positive psychological paradigm, which provides scientific, evidence based interventions for promoting local and global coherence, research, health and well-being. The presentation focused on tertiary educational collaborative GCI research at international, local scientific, health, educational and related institutions and their respective faculties, institutes and departments, with the University of Zululand used as example. Further related research is encouraged.

From a practical positive psychological perspective, HeartMath tools and techniques provide intervention, alleviation and management of everyday human problems such as pain, suffering, stress, tension, anger, anxiety, and depression. This is an unequalled, in the moment intervention and on-going moment to moment coping resource, a scientific, evidence based, updated form of intervention that humanity has used for millennia. HeartMath research indicates that tools and techniques lead to the saving, channeling and harvesting of vital energy as well as building of resilience, life appreciation and positive emotional reframing of above-mentioned negative emotions into joy, excitement, happiness, peace and contentment. Interventions effect consciousness transformations through mindfulness, acceptance and commitment. They improve counseling, psychotherapy, meditation, contemplation and promote integrity, wisdom, moral action and ethical behavior.

Despite all global problems, wonder of wonders, on awakening in the morning, individuals may feel in perfect synchrony with everything within them, as well as being part of everything else. Depending upon spiritual and/or religious orientation, they may interpret their experience as ancestral consciousness, unity consciousness, Brahman, Tao, God, Allah, nondual reality, etc. They may feel changes in heart consciousness and experience perfect health, attuned to the resonant frequency of planet Earth and more. Dante sang of the love that moved the sun and other stars. Substantial evidence provided by the Institute of HeartMath on heart energetics and global coherence, supported by intuitive heart consciousness, indicates that each individual heart's electromagnetic field radiation, including deeper energetics of coherence and positive emotions such as love, is affecting the earth's electromagnetic field and entire galaxy, on a beat to beat, moment to moment basis. Individuals may decide to convert such feelings, intuitions, meditations, prayers and contemplation into creative, global health promotive behaviour. They may choose to commit to a regular practice of HeartMath techniques. Individuals and collectives may decide to become Global Coherence ambassadors. Planet Earth desperately needs many such consciousness transformations, changes of heart and related actions. HeartMath Global Coherence Initiative constitutes one excellent example of a global psychological approach to health promotion. Many more integral healing approaches are needed, as is collaboration between all caring planetary stakeholder individuals, communities and countries.

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