

## Research publications BIODANZA & SCIENCE

Following you find a list about research publication in journals worldwide until 2017. Point 1-8 is the order of the Leipzig-Biodanza-Research plan, how it was discussed with Rolando Toro: BIODANZA Publications worldwide for download at [www.bionet.name](http://www.bionet.name).

### 1. Development and updating of the theoretical model of Biodanza,

The advantage of Science is the critical reflexion. In the Professorial Dissertation of Stueck (2007) there was the demand to write a critical reflexion about the Theory of BIODANZA.

(1) *Critical reflexion about the theoretical model of BIODANZA*:IN: Stueck, M. (2007). Development and empirical evaluation of a stress coping concept under the use of Biodanza and Yoga for teachers. Habilitation (professorial dissertation). Fakultät für Biowissenschaften der Universität Leipzig (Faculty of Bioscience University of Leipzig) (german).

(2) Stueck, M. (2008). Development and Scientific Actualization of the Theoretical Modell. IN: Marcus Stueck & Alejandra Villegas, Dance towards Health, Schibri: p: 103 – 104.

### 2. Experimental life science basic research on the effects of Biodanza

In this point are investigations about Laboratory research, Psychoneuroimmunological research and BIODANZA, Physiology and BIODANZA, since 1998.

#### *Physiology and Biodanza:*

(1) Stueck, M., Balzer, H.-U. et.al. (2008). Overview, Conclusions of the physiological studies about BIODANZA. IN: Marcus Stueck & Alejandra Villegas, Dance towards Health, Schibri: p: 105 – 178

(2) Stueck, M., Balzer, H.-U. (2008). Biodanza and Physiological Measurement of the Model Curve, IN: Marcus Stueck & Alejandra Villegas, Dance towards Health, Schibri: p: 105 – 112

(3) Stueck, M.; Villegas, A., Perche, F.; Balzer H.-U. (2007). New Ways of stressreduction in teachers: Biodanza and Yoga as bodyoriented method to reduce psycho-vegetative tention. *Ergomed*, 03/2007, 68-75. (german)

(4) Stueck, M., Balzer, H.-U. et.al. (2008). Biodanza and Physiological Stress-Protection mechanisms (overloaded inhibition, hypersensitivity), IN: Marcus Stueck & Alejandra Villegas, Dance towards Health, Schibri: p: 112 – 119

(5) Balzer, H.-U., Stück, M. (2013). The psychological meaning of Hypersensibility. Biopsychological Basics of Life: In *Bionet / Biopsychological basics of Life 2/2013*, 23-35

(6) Stueck, M., Sonntag, A., Balzer, H.-U., Glöckner, N., Rigotti, Th., Schönichen C. & Hecht K. (2005). Hypersensitivity states of electrodermal activity and Experiencing stress in the teaching profession. (Psychophysiological corelates of Empathy) *Psychomed*, 17 (2), 109-114.

(6) Stueck, M., Balzer, H.-U. et.al. (2008). Biodanza and Physiological Measurement the day/night before, during and after Biodanza (48 hour monitoring of skin response and its psychological meaning), IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 105 – 112

### ***Hormons, Immunesystem (Psychoneuroimmunology and Biodanza):***

(1) Stueck, M., Sack, U. et.al. (2008). Evaluation of endocrinological and immunological effects of Biodanza. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 119 – 134

(2) Stueck, M., Villegas, A., Schröder, H., Sack, U., Terren R., Toro V. & Toro R. (2004). Biodanza as Mirrored in the sciences: Research concerning the psychological, physiological and immunological effects of Biodanza. *Zeitschrift Moving on. Dance Therapy Association of Australia*, 3 (2).

(3) Stueck, M.; Villegas, A.; Schröder, H.; Sack, U.; Terren R.; Toro V.; Toro R. (2004). Biodanza as Mirrored in the sciences: Research concerning the psychological, physiological and immunological effects of Biodanza. *Arts in Psychotherapy*, 31 (3), 204. (abstract)

(4) Stück, M.; Villegas, A.; Bauer, K.; Terren R.; Toro V.; Sack U. (2009). Psycho-Immunological Process Evaluation of Biodanza. In *Signum Temporis. Pedagogy & Psychology*. Vol 2/1/2009

(5) Stueck, M., Villegas, A. (2013). *Effects of an evidencebased dance program (Tanzpro-Biodanza) for kindergarten children aged four to six on immunoglobuline a, testosterone and heart rate*. *Problems of education in the 21st century*, 56/2013, 128 – 143

(6) Stueck,M.; Villegas,A.; Lahn,F.; Bauer, K.; Tofts P.; Sack, U. (2016). Biodanza for Kindergarten children (TANZPROBiodanza): Reporting on changes of cortisol levels and emotion recognition. *Body, Movement and Dance in Psychotherapy*, Vol. 20, No. 10, 1-14. Routledge, Francis & Taylor

(7) Stueck,M., Villegas,A. (2017) Potential Effects of Evidencebased BIODANZA Programmes for children (TANZPRO-Biodanza) in Schools and Kindergartens on Psychology, Physiology, Hormones and the Immune System. in: *The Oxford Handbook of Dance and Wellbeing*, Vicky Karkou, Sue Oliver, Sophia Lycouris, New York: Oxford University Press, S. 77-98

### ***Investigation of Biodanza Music:***

(1) Gloeckner; N.; Stueck, M. (2008). Pilot study about Effects of Biodanza Music. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 134 - 137

### ***Effects of Caress and Contact:***

(1) Stueck, M., Balzer, H.-U. & Sack, U. et.al. (2015), Laboratory project about contact: publication in progress

### 3) Quasi-Experimental studies weekly Biodanza classes (since 1998): Experimental-Control Group-Design

**1999-2008: BIODANZA und Stress: Investigacion sobre los efectos psicologicos y fisiologicos de la biodanza (with R.Toro: first empirical research project worldwide)**

(1) Villegas, A., Stueck, M., Terren, R., Toro, V., Schröder, H., Balzer, H.-U., Hecht, K. & Mazzarella, L. (1999). Psychologische und Physiologische Wirkungen von Biodanza. In *Conexión Abierta UAI B. Aires.* (2/1999), 15-18 (spanisch).

(2) Villegas, A., Stueck, M., Terren, R., Toro, V., Schröder, H., Balzer, H.-U., Hecht, K. & Mazzarella, L. (2000). Untersuchungen zu psychologischen und physiologischen Effekten von Biodanza. In *Biodanza/AEIB: Jährliche Zeitschrift.* (1/2000), 37-42 (deutsch/englisch/italienisch/spanisch).

(3) Villegas, A. (2008) *The danced way - processes and effects of Biodanza.* Strasburg: Schibri-Publishing House

**Since 2005 Doctoral Thesis (PhD, Professorial dissertations)**

(1) **First qualitative PhD worldwide:** (1) Pereira, B. (2005).

(2) **First quantitative PhD worldwide:** (2) Villegas A. (2006). Process evaluation of BIODANZA. Dissertation. Faculty of Biosciences at the University of Leipzig.



This book represents the first dissertation about Biodanza, that is based on empiric research data. It was written and produced at the university of Leipzig and hereby released to a broad public. The dance oriented interventional method of Biodanza is based upon the interaction of music, movement and interpersonal encounters and experiences. In the context of this study Biodanza sessions were held regularly over the period of 10 weeks. The effects of these sessions were then verified using variables of the psychological health and the the ability to process stress. In the theoretical part of the study we will be explaining the fundamental elements of Biodanza. This part also regards the necessity of involving the body and the act of dance in the psychotherapy. The results of this work show, that Biodanza promotes health and personality development .

(3) **First quantitative professional dissertation worldwide:** (3) Stueck, M. (2007). Development and empirical evaluation of a stress coping concept under the use of Biodanza and Yoga for teachers. Habilitation (professorial dissertation). Fakultät für Biowissenschaften der Universität Leipzig (Faculty of Bioscience University of Leipzig) (german).

(3) Overview about PhD about BIODANZA: Stück, M. (2012) Ed. *Biopsychological Basics of Life/BIONet: PhD`s about Biodanza.* Strasburg: Schibri-Verlag.

**DOWNLOAD: [www.bionet.name](http://www.bionet.name)**

## ***2004-2008: Systemic Stress reduction (SYSRED) in Schools under the use of BIODANZA (BIODANZA and Health Promotion)***

(1) Stueck, M. (2004). Stress management in Schools: an empirical investigation of a stress management system. *Social Work Practitioner-Researcher*, 16 (2), 216–230.

(2) Stueck, M. (2011). The concept of systemrelated stress reduction (SYSRED) in educational fields under the use of Biodanza. *Problems of education in the 21st century*, 29/2011, 119 – 134

(3) Stück, Marcus (2010). „Kommunikation fördern und Identität stärken“. Systembezogene Stressreduktion (SYSRED) in pädagogischen Feldern- eine Zusammenfassung- , in: *Beiträge zur Pädagogischen und Rehabilitationspsychologie. Learning, Adjustment and Stress Disorders*, hrsg. von Evelin Witruk, Frankfurt am M.: Peter Lang, S. 465-480

(4) Stück, M., Villegas, A., Terren, R., Toro, V., Mazzarella, L. & Schröder, H. (2008). Dance the stress? Biodanza as an new bodyoriented psychological intervention method of stress coping for teachers. *Ergomed*, 02/2008, 34-43. (german)

(5) Stueck, M. (2008) New ways: Yoga and Biodanza in the stressreduction for teachers. Strasburg: Schibri Publishing House(11)

(6) Stueck, M., Villegas, A. (2012). Biodanza as a health-promoting intervention for teachers. in *Biopsychological Basics of Life: BIONet*, 1/2012, 33-39

## ***2008 - BIODANZA, Stress, Wellbeing: annual courses of Biodanza***

(1) Stueck, M. Villegas, A. (2005). Effects of a Biodanza-Course of 1 year. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 212 – 213

(2) Giannelli M.T., Giannino P., Mingarelli A. (2015). Health effects derived from an annual course of Biodanza: an empirical study. Published in *Psicologia della Salute (Psychology of Health)*. Franco Angeli Issue 1/2015, pp 84-107

(3) Stueck, M.; Tofts, P.S. (2016). Biodanza Effects on Stress Reduction and Well-Being – A Review of Study Quality and Outcome. De Gruyter: *Signum Temporis*. 8 (1), 57-66

(4) Lopez-Rodriquez, M., Baldrich-Rodriquez, Ruiz-Muelle, A., Cortes-Rotriquez, AE, Lopezosa-Estepa, T., Roman P. (2017). Effects of Biodanza on Stress, Depression, and Sleep Quality in University Students. *J.Altern.Complement Med*. Jul, 23 (7), 558-565

## ***Summary of the empirical BIODANZA Research worldwide (2008):***

(1) Stueck, M. & Villegas, A. (2008). *Dance towards health. Empirical research of BIODANZA* In: M. & A. Stueck Villegas (ed.), *Biodanza in the mirror Sciences*. 1st Bd Strasburg: Schibri-Verlag (published in four languages: German, Italian, Spanish, English)

***Biodanza and Elderly People:*** (1) Fidora, N., Mader-Freuyhoff Gabi. Stueck, M. *Effects Biodanza with elderly people*. Leipzig: Pinguine, Polar Bear Edition (print on demand)

## ***Biodanza and Fibromyalgia***

(1) Carbonell-Baeza<sup>1</sup>, A., Jonatan R. Ruiz, Virginia A. Aparicio, Clelia M. Martins-Pereira, M. Claudia Gatto-Cardia, Jose M. Martinez, Francisco B. Ortega, Manuel Delgado-Fernandez (2014). Multidisciplinary and biodanza intervention for the management of fibromyalgia. *Acta Reumatol, Port*, 2012, 37, 240-250

## ***BIODANZA with Psychotherapy Patients (2000 – 2003)***

(1) Villegas, A., Stueck, M., Schröder, H. (2008). The effect of Biodanza on Psychotherapy Patience. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 182 - 192

## **4) Quasi-Experimental Research on Extension of Biodanza (since 2006)**

(1) Stueck, M. & Villegas A. (2008): The effects of Biodanza Extensions. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 238 - 243

## **5) Cross-cultural studies of Biodanza (Since 2005)**

(1) Stueck, M. & Villegas A. (2008): The crosscultural effects of Biodanza: study between Argentina and Germany. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 214 – 238

(2) Stueck, M.; Villegas, A.; Svence G. (2011). BIODANZA metode- dzīves dejas zinātniskais koncepts. In Integral-publishing. Latvia

## **6) Studies on the quality of Biodanza teacher-training (since 2003), especially ethics**

(1) Stueck, M. & Villegas A. et al. (2008): Investigation of Media Awareness and Biodanza IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 246 - 248

(2) Stueck, M. & Villegas A. et al. (2008): Which personalities comes to BIODANZA? IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 248 - 250

## **7) Biodanza with children (since 2008)**

2009/2010: BIODANZA and PTSD, e.g. after Natural Disasters for children

(1) Witruk, E., Reschke, K. & Stueck M. (2009). Psychological stress of emergency workers - and psychological effects of emergency aid for victims of the tsunami disaster in Sri Lanka and

Indonesia. In trauma and violence (under use of BIODANZA). In *Trauma und Gewalt*. Klett-Cotta 03/2009, 196-208.

(2) Stück, Marcus; Schlegl, Sandra; Villegas, Alejandra; Riha, David; Törpsch, Alexander; Duben, Madlen (2010). The classification of body-oriented interventions in the Treating post-traumatic disorders in childhood and adolescence, in: Contributions to Education and rehabilitation psychology. *Learning, Adjustment and Stress Disorders*, Edt. Evelin Witruk, Frankfurt am M.: Peter Lang, S. 427-454

(3) Senerath, S. (2009). Integrated interventive program (under use of TANZPRO-Biodanza) after natural disasters for treatment of PTSD in children. Dissertation. Faculty of Biosciences at the University of Leipzig.

#### 2010/2013: BIODANZA and School of Empathy

(3) Stueck, M., Villegas, A., Toro, R. (2010). Nonverbal Aspects of respectful communication – How the Pinguine came to Polarbear: A dialog between north and south. (School of Empathy for educators) In: M. Stueck (Ed.), contributions to health education. Bd 8 Strasburg: Schibri Publishing House

(4) Stück, M., Schoppe, S., Lahn, F. & Toro, R. (2013). Was nützt es sich in jemanden hineinzusetzen, ohne zu handeln? In *ErgoMed / Praktische Arbeitsmedizin*, 6/2013 (37) 38-46.

(4) Stück, M. (2013). School of Empathy: Introduction and First Results. in: Beiträge zur Pädagogischen und Rehabilitationspsychologie. Historical and Cross-Cultural Aspects of Psychology, hrsg. von Evelin Witruk, Frankfurt am M.: Peter Lang

(5) Stück, M. (2013). Die Grundlagen einer Theorie von sich selbstorganisierenden empathischen Netzwerken: Historische Ursprünge. in: Beiträge zur Pädagogischen und Rehabilitationspsychologie. Historical and Cross-Cultural Aspects of Psychology, hrsg. von Evelin Witruk, Frankfurt am M.: Peter Lang

#### 2010: BIODANZA and Masterplan Healthy education

(6) Stueck, M. (2010). Children, researchers, educators - Early education on the Test (Masterplan healthy education under use of BIODANZA). In M. Stueck (Ed.), Contributions to healthy education. Strasburg: Schibri Publishing House

(7) Stueck, M. (2015). *Biodanza - Inklusion geht nur mit geschlossenen Augen!* Praxishandbuch Kinder unter 3, Ausgabe 14

#### 2010: Waterbased selfregulation with Biodanza for children

(8) Stück, Marcus (2010). Waterbased selfregulation with Biodanza for children preventive intervention to improve the binding behavior, in: Contributions to Education and rehabilitation psychology. *Learning, Adjustment and Stress Disorders*, Edt. Evelin Witruk, Frankfurt am M.: Peter Lang, S. 359-366

2013: Effects of an Evidence Based Biodanza-Program (TANZPRO-BIODANZA) for Kindergarten children (4-6) on Psychology, Physiology, Immune system, Hormone system

(9) Stueck, M., Villegas, A. (2013). *Effects of an evidencebased dance program (Tanzpro-Biodanza) for kindergarten children aged four to six on immunoglobuline a, testosterone and heart rate*. Problems of education in the 21st century, 56/2013, 128 – 143

(10) Stueck, M.; Villegas, A.; Lahn, F.; Bauer, K.; Tofts P.; Sack, U. (2016). Biodanza for Kindergarten children (TANZPROBiodanza): Reporting on changes of cortisol levels and emotion recognition. *Body, Movement and Dance in Psychotherapy, Vol. 20, No. 10, 1-14*. Routledge, Francis & Taylor

(11) Stueck, M., Villegas, A. (2017) Potential Effects of Evidencebased BIODANZA Programmes for children (TANZPRO-Biodanza) in Schools and Kindergartens on Psychology, Physiology, Hormones and the Immune System. *in: The Oxford Handbook of Dance and Wellbeing*, Vicky Karkou, Sue Oliver, Sophia Lycouris, New York: Oxford University Press, S. 77-98

(12) Greaves, V., Stueck, M., Svence G. (2015) CHANGES OF 1ST GRADE SCHOOL CHILDREN'S EMOTIONAL AND SOCIAL COMPETENCES IN TANZPRO-BIODANZA INTERVENTION GROUP. SOCIETY. INTEGRATION. EDUCATION. Proceedings of the International Scientific Conference, Vol 1 (2016)

## **8) Publications in scientific journals, Methodology of BIODANZA-Studies**

This is an important point of the Masterplan. To focus on highly accepted publications.

(1) Stueck, M. (2008). Methodology and Statistical procedures for BIODANZA-studies. IN: Marcus Stueck & Alejandra Villegas, *Dance towards Health*, Schibri: p: 256-261

(2) Stueck, M.; Tofts, P.S. (2016). Biodanza Effects on Stress Reduction and Well-Being – A Review of Study Quality and Outcome. *De Gruyter: Signum Temporis*. 8 (1), 57-66

(3) Stueck, M., Seeling, F., Rigotti, Th., & Lander J.-H. (2006). Analysemethoden des Semantischen Differentials. In E. Witruk, J.-H. Lander (Hrsg.), *Kognitionspsychologische Analysen von Gedächtnisfunktionen*. Herzogenrath: Shaker Verlag.

## **New publications written especially for Biodanza teachers:**

BOOK BIODANZA & SCIENCE: Introduction in the scientific Basics of BIODANZA (M.Stueck, Part 1) – print on demand: [biodanzanews@gmail.com](mailto:biodanzanews@gmail.com)

BIODANZA & SCIENCE: Introduction in the scientific Basics of BIODANZA (M.Stueck, A.Villegas, Part 2, Eds.), print on demand: [biodanzanews@gmail.com](mailto:biodanzanews@gmail.com)

“The Final discussion. Interviews with Rolando Toro about the Science within Biodanza” (M.Stueck): under construction/work: [biodanzanews@gmail.com](mailto:biodanzanews@gmail.com)

## **Evidence-based BIODANZA in institutions to increase wellbeing and to reduce the stress in children**

Marcus Stueck & Alejandra Villegas

The body is the greatest thinking organ for children. It means that a child feels this world, because than younger a child is than less the cortex is developed. So the basic of the child's wellbeing is first of all linked to the possibility to play (Krenz, 2006), to express the instincts, needs and feelings and to feel connected with others (Stueck, 2010). This wellbeing in children needs first of all support and stimulation of the adults and teachers. (1) When adults are not present, than children can't experience the environment fully with their body and they cannot develop a self consciousness, describes the biologist Humberto Maturana. (2) Second needs the child a relaxed healthy environment and (3) third empathic links to the teachers and adults. This 3 steps presence, relaxation and empathy Stueck defines in the Masterplan Healthy education as the basics in human relations. In this context empathy is the basic of wellbeing as a biologically, affective, cognitive and behavioural connection between child and teacher or parents. It needs trust, autonomy, interest in others, giving up controlling ambitions. Stueck and Villegas were developing evidence based Biodanza programmes for teachers to increase empathy and wellbeing with themselves and with others and especially with nature. Also a systemic stress reductive interventive approach was tested in German schools (Stueck, 2007). This theory shows, that to increase wellbeing in children means first of all to work with adults in a systemic approach and first of all in a nonverbal way to express their own identity. One of the methods to reach this aim is BIODANZA.

Biodanza for children was adapted from the Rolando Toro System by Cecilia Luzzi in Chile in the 1980s. Dance experiences for children are based on dances along the lines of vitality, affectivity, creativity and transcendence. In 2010 Marcus Stueck and Alejandra Villegas (Stueck, Villegas, 2013) undertook in a project of the ministry of Health and Education of Germany the first research worldwide on Biodanza with children. They prepared this method for the work in institutions by developing an evidence-based Biodanza programme (TANZPRO-Biodanza<sup>®</sup> for children / the dance of Life / way from head to Body) as the nonverbal part of the School of Empathy (SoE; Stueck, 2013). The verbal part of the School of Empathy is the Evidence-based Programme "Respectful Communication<sup>®</sup>" (Language of Life / way from the body to head) based on Marshal Rosenberg's Nonviolent communication (Mueller, Poerschmann, 2010; Schoppe, Stück, 2012). The verbal and nonverbal part of the development of empathy under the use of Biodanza are well integrated and with this concept Biodanza was brought to many Educational Fields in Indonesia, Latvia Germany. This Evidence-based programme TANZPRO-Biodanza<sup>®</sup> for children exists in a kindergarten version (10 sessions ages 4-6) and a school version (10 sessions ages 7-12) and was investigated at the University of Leipzig. Each session is accompanied by music and supported using activating exercises with faster music to promote not only the vitality but also the creativity of children. Then quieter exercises together with slower music are used to promote relaxation and encounters with appropriate (partner) exercises. These can improve the perception and acceptance of emotions as well as emotional regulation and empathy with others. Thus findings were made in the studies as well as a series of biochemical, physiological and immunological parameters which were investigated. Especially, the reduced testosterone levels in the saliva of children after these meetings show positive effects of the method on the immune system towards the development of more sensitivity (Stueck, Villegas, 2012). Also the reduction of cortisol and the specific effects of TANZPRO-Biodanza on heart rate and blood pressure show the improvement of physical autoregulatory processes. The results confirmed that cognitive performance in children (concentration and emotion recognition) can be developed by dancing



and the effects are on average greater when participants have lower cortisol levels in their saliva after the TANZPRO-Biodanza sessions than with higher levels of cortisol. The measured cortisol reduction suggests that TANZPRO-Biodanza® (with its stress-reducing, pro-social nature) has the capability of promoting the development of emotion recognition abilities, thus enhancing the social skills of young children (Stueck, Villegas, 2013). This research under the use of the evidence-based Biodanza-Training TANZPRO-Biodanza will be repeated in Latvia mainly with the aim of reducing chronic stress and hypersensitivity in young children as the basis of nonviolent behaviour in schools and kindergartens (Balzer, Stueck, 2013). Embedded should be the work with children in a masterplan Healthy Education or similar meta plans where teachers and the conditions are involved (Stueck, 2009, 2013) by using 7 steps: presence, relaxation, empathy, supervision, educational abilities and frame conditions. This is also undertaken using wide research with teachers under the use of Biodanza (Stueck, 2007, Stueck, Villegas, 2008).

**Conclusion:** Wellbeing with children is first of all of all support and stimulation of the adults and teachers and the possibility to move freely and to express the feelings and needs autonomously. The article will give an overview about some studies about hormonal and immunological effects of the evidencebased programmes with Biodanza.

#### **Literature:**

s. Literatur list.



#### ***Fernanda Perche gewidmet***

*alle wissenschaftlichen Veröffentlichungen sind der brasilianischen Biodanza-Lehrerin und unserer Freundin Fernanda Perche gewidmet, die während der ersten Untersuchung in B.Aires 1998 plötzlich und unerwartet verstarb. Ein unermesslicher Verlust und Schock für uns alle. Sie lebt in unserem Herzen weiter. Ohne sie wären diese Forschungen nicht entstanden.*

## **BIODANZA for adults – the biological basic of wellbeing**

Marcus Stueck & Alejandra Villegas

Wellbeing is first of all a biological process, embedded in social contexts and with psychological effects. For instance is a certain synchronicity between heart beat and breathing cycle for wellbeing necessary (distribution 4:1). Also between other autonome reactions (skin resistance, skin potencial, skin temperature), biochemic parameters (cortisol, testosterone, immune globuline A) and wellbeing are shown this synchronicity effects (Balzer, 2008). Stueck and Balzer investigated the parameter Hypersensibility of the skin and its effect on exhaustion and Burnout. This biological malfunctions and its influence on wellbeing can be regulated by Yoga, Meditation and Biodanza as different studies of Stueck and Villegas has shown. In their studies they found, that in 10 sessions of Yoga and Biodanza selfregulative balancing processes are stimulated. It means Immunglobuline A is increasing after each session significantly. In comparision to Yoga (relaxation method) by using dance and expression of Emotion in Biodanza the Pre Values of Immunoglobuline shift to a higher level from the 7<sup>th</sup> session onwards. It means a selforganisation in the IgA-regulationary system took place. Selforganisation is a process of instability and new stability and it can be measured by different parameters (e.g. skin response) and analyzing models (bio rhythmometrical time row analysis, Hecht and Balzer, 2000). Stueck, Villegas and Balzer could show, that the instability of the vegetative-emotional system is significant higher after a Biodanza Session but the participants feel in the same time significantly more awake, had a better mood and a higher vitality. Also the physiologically excitement was significant higher in the next day after a Biodanza session accompanied by a higher feeling of wellbeing and by using less protection mechanisms (e.g. overloaded inhibition states) to cope with the excitement. To conclude the biological basic of wellbeing has to do with stability /instability in the autonomeous regulation, with expression of emotion, with selfregulation and one effective method for that is dance respective Biodanza. Biodanza exercises directly stimulate most of all the symphatic-nervous system and the limbic-hypothalamic system in a natural, positive and healthy way (Stueck, Villegas, 2008). The method of Biodanza was developed by Rolando Toro in the 60s. Rolando Toro's aim was for people to learn how to live well and happily together, because when people are happy they are healthy, as different research has shown (see positive psychology, Seeligman, 2002). For this he created with Biodanza a system of dances in 5 Lines of Experience: Vitality, Affectivity, Sexuality, Transcendence, Creativity. The theory of Biodanza is based on the concept of human integration on a personal, interpersonal and transcendental level. In the 1990s Marcus Stueck and Alejandra Villegas and colleagues started to investigate scientifically BIODANZA at Leipzig university and published their results about the effects of BIODANZA on wellbeing as the examples has shown in the beginning of this abstract. In different studies they demonstrated that Biodanza has an effect on physiological, psychological and immunological system (Villegas, Stueck et al. 1999, 2000, Villegas, 2006, Stueck, Villegas, 2004, 2007, 2008, 2009). By this changes Biodanza is a 'method to improve than psychological parameters, for instance improvement of the expression of identity', it means the unit between thinking, feeling and acting'. Thus inducing harmony, unity, fluidity, eroticism, pleasure and plenitude which can be shown in the change of different psychological variables (higher optimism, relaxation, self-efficacy, ability of love and empathy, (Villegas 2006/2008, Stueck, 2007/2008, 2012). This increased potential counterbalances the excessive negative impact on the system from stress, anxiety, depression and the sublimation of instinct and self-expression into 'more culturally acceptable' behaviour. Studies have been done especially in the study group in Leipzig with adults (teachers, patients of psychotherapy, employees), teachers and children (see literature). An overview about the worldwide dissertation works is given in the Bionet Journal 2012 (see [www.bionet.name](http://www.bionet.name)).

## Literature:

Seligman, M.E.P. (2002). *Authentic Happiness*. New York: Free Press.

Svence, G.; Stueck, M. (2011). Rīgas Pedagoģijas un izglītības vadības akadēmija Pozitīvās emocijas un izzīņa pieaugušo mācīšanās procesa organizācijai. Pozitīvās emocijas un izzīņa pieaugušo mācīšanās procesa organizācijai. Rīga. RAKA 167.-176. ISBN 978-9984-46- 212-7

## Research of the authors about Biodanza

s. Literatur list.



*“To investigate Biodanza is like to investigate a treasure deep in the ocean  
or to watch a indefinite universe full of incredible and beautiful miracles”*

*Marcus Stueck*

**Publication 2016: A review out of 7 Biodanza studies with discussion of study quality**

## Research Article

## Open Access

Marcus Stueck, Paul.S.Tofts

# Biodanza Effects on Stress Reduction and Well-Being – A Review of Study Quality and Outcome

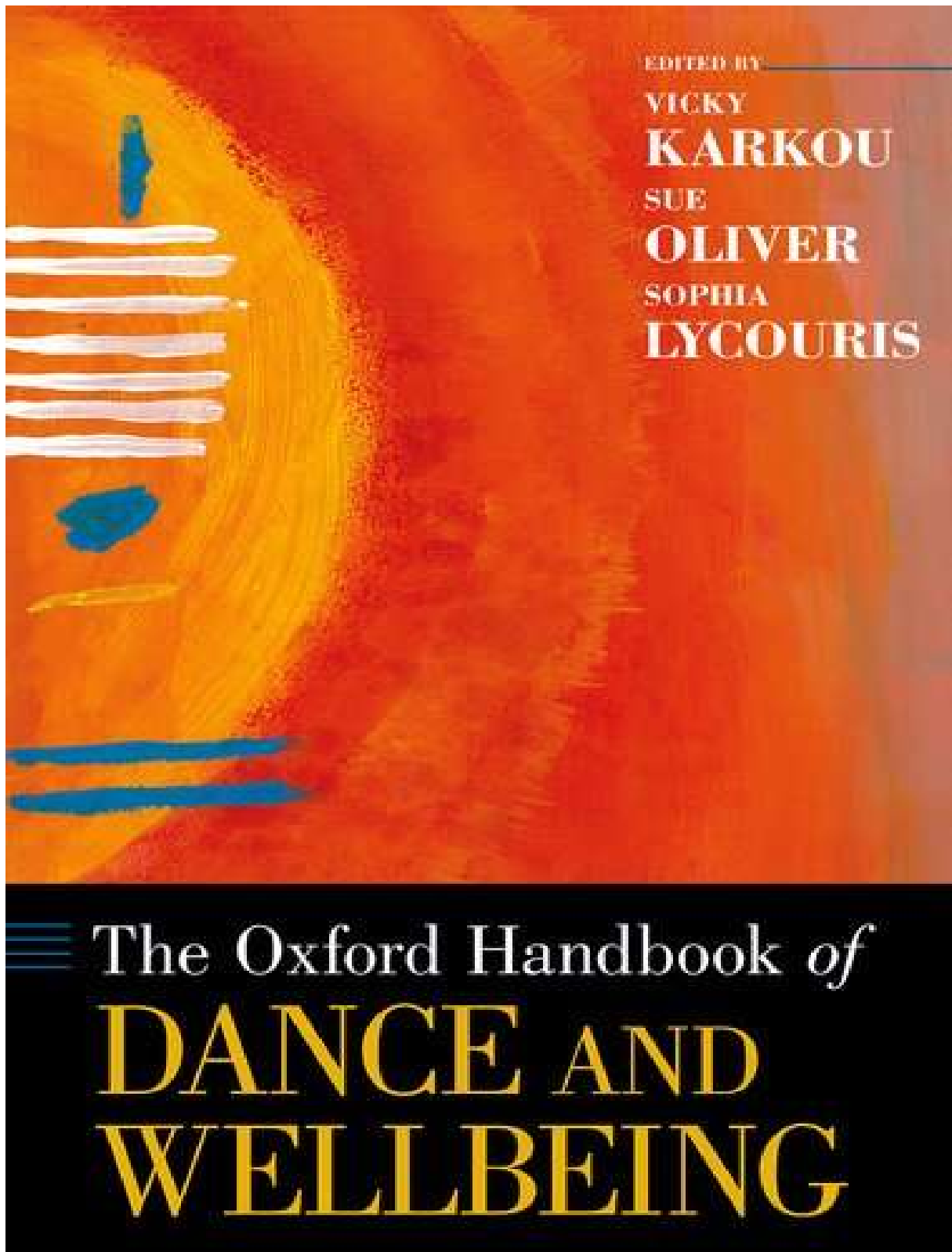
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**Abstract:** Biodanza is a new approach towards health and well-being. It aims to work with dance and group experiences to reinforce intra- and inter-individual resources, reduce stress and increase well-being. Up to 2016, 13 studies and one systematic review about Biodanza studies have been published. The Research Network BIONET was created in order to connect researchers and to find a consensus on the standards of good quality studies. In this review, the authors summarised seven Biodanza studies on stress reduction and well-being. The authors describe and create criteria to evaluate the quality of the research works inspired by international standards of clinical and social scientific intervention research. In several studies, Biodanza has an effect on impatience, ability to recover, feeling of activation, physiological sympathetic activity (e.g. heart rate, skin response), increased mood, feeling of well-being, immunological effectiveness on IgA and increased expression of emotion. One study also showed the effect on stress reduction. Also there was a large difference between those who choose Biodanza (they have a significant lower status of stress reduction) and the other groups. In this study, the dropout rate was high (42%); in the other studies, it was under 10%.

**Keywords:** Biodanza, stress reduction, well-being, health, dance, yoga, review, methodology, body work, study design.

**Publication 2017:** With articles from researchers and dancers from the whole world and one Article about BIODANZA with children:

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## CHAPTER 4

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# EVIDENCE-BASED BIODANZA PROGRAMMES FOR CHILDREN (TANZPRO- BIODANZA) IN SCHOOLS AND KINDERGARTENS

*Some Effects on Psychology, Physiology, Hormones,  
and the Immune System*

.....

MARCUS STUECK AND ALEJANDRA VILLEGAS

..... since 2010 Development of Evidencebased Biodanza Programms for Institutions (in a Project of the German Ministry of Health).

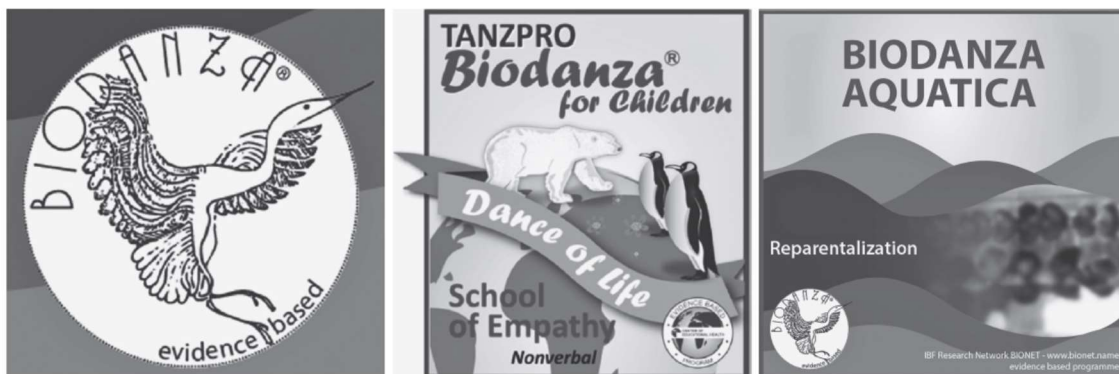


FIGURE 4.1. Examples of evidence-based Biodanza programmes (Logos). (Credit: M Stueck.)



**Table 4.2. Overview of sessions and related themes of basis version of TANZPRO-Biodanza.**

Sequence	Theme	Notion (life focused value)
1	Travel to Spain	Love and care
2	Travel to Egypt	Joy
3	Travel to Tanzania	Leisure and courage
4	Travel to Chile	Wishes and risk
5	Travel to Brazil	Feeling of security and embrace
6	Travel to Mexico	Diversity and friendship
7	Travel to Ireland	Acceptance and integration
8	Travel to Russia	Humbleness and sportsmanship
9	Travel to China	Creativity and solidarity
10	Travel to Germany	Respectful communication

Some results:

### *Change in Cortisol Level in Kindergarten Children because of TANZPRO-Biodanza*

This study showed the change in cortisol of kindergarten children after taking ten sessions of TANZPRO-Biodanza. Children initialized with high cortisol level seemed to be ‘normalizing’, whilst those with low cortisol level seem to be already ‘normalized’ (Stueck et al. 2015). Furthermore, the findings from this study suggested that there might be an autoregulatory effect of TANZRPO-Biodanza sessions in children of kindergarten age.

### *Effects on Emotional Recognition and Its Relation to Cortisol Reduction*

The same study (ten children, aged 4–5; ten sessions of TANZPRO-Biodanza) confirmed that cognitive performance in children (e.g. emotion recognition, measured with the Emotion Recognition Test in the Vienna test system, whereby the children had to recognize different emotions from photographs) could be developed by dancing. The effects were on average greater when participants had higher initial cortisol levels in their saliva (before the TANZPRO-Biodanza sessions) than those with lower levels of cortisol (Stueck et al. 2015).

### *Heart Rate and the Improvement of Physiological Auto-regulation*

In the same study, looking at the heart rate for each child before and after the TANZPRO-Biodanza course, there was a significant decrease in the average score, which was statistically significant ( $p = 0.04^*$ ,  $d' = 0.77$ ,  $1-\beta = 0.68$ ). The low-level and high-level groups showed significant change of heart rate (average over ten session) between pre-session and post-session, towards the value of the medium heart-rate group (see Table 4.3).

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