

# Verónica Guzmán

# Miriam Sandoval



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## Summary

Graduate and undergraduate Studies in Psychology.  
PhD from University of Guadalajara, Mexico.  
Postdoctoral Training at the National Autonomous University of Mexico. 2014-2016. Researcher and Professor at the University of Colima, Mexico.  
Health Psychology Researcher with experience in hospitals.  
Skills in Evaluation and management of Pediatric Pain.  
Developed novel application (i-CARE) for the management of chronic pediatric pain.

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## Experience

### Researcher "Titular A"

**University of Colima, Mexico** August-2017  
- Present

Teaches at the Psychology Graduate Curriculum at the Universities of Colima and Guadalajara.

Designed and restructured curricular psychology programs.

Researcher on Effective Pediatric Pain Therapies using novel Technologies. Developer of new technologies with a translational model in clinical settings. Developed a novel application, i-CARE, to manage pain in children with chronic diseases. This app was developed in collaboration with programmers, biologists and neurologist

The i-CARE app has been successfully tested in numerous Mexican hospitals and is registered in "Instituto Nacional de Derechos de Autor" (INDAUTOR) and "Instituto Mexicano de la Propiedad Intelectual" (IMPI). This registration provides intellectual property and trademark to the developer. This application is currently in use at various hospitals and institutions in Colima, Mexico.

Performed Research with the chief of Neuroscience laboratory at the National Autonomous University of Mexico to measure biomarkers of pain.

### Researcher in the sleep laboratory at the Salvador Zubirán Hospital in Mexico City.

**Nutrition Hospital " Salvador Zubirán"**  
Mexico City  
July-2000 - August-2000

Designed a clinical trial to study the relation between sleep and pain in patients with.

## Research stay at the Neuroethology

### Laboratory at the University of Veracruz.

**University of Veracruz**, Veracruz Mexico

Designed a pharmacological experimental research to explain  
Interconnection between androgen hormones with hopelessness using Wistar rats as a model.  
July-August-2001

### Research stay at Rovira i Virgili Hospital, Spain

**Univesity of Rovira i Virgili** Tarragona Spain  
November-December 2009

Clinical training to develop technologies with clinical applications.

### Research stay in Behavioral Cognitive Therapies

**University of Malaga**, Spain  
January-August-2002

Training on Behavioral and Cognitive Therapies.

### Research Stay with Body- Mind team

**National Autonomous University of Mexico**  
Mexico City  
October-November 2009

Technological training to evaluate and manage pain.

### Science Outreach

**University of Colima**, México July-2014 -  
Present

Education and public outreach of science by radio and television programs, and science magazines for the empowerment of the Mexican society in the clinical management of pain:  
<https://bit.ly/2UvxdbJ>  
<https://bit.ly/2KtR5Ye>  
<https://bit.ly/2IcBgTV>  
<https://bit.ly/2D9Yw0C>  
<https://bit.ly/2Z75ih5>  
<https://bit.ly/2UAJax3>  
<https://bit.ly/2UeSYYx>  
<https://bit.ly/2IbuiOR>  
<https://bit.ly/2PlyvVQ>

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### Education

### PhD in Health Psychology

**University of Guadalajara**, Mexico 2011

PNPC Program given by the national Council of Science and Technology (CONACYT) Mexico.

### Postdoctoral research

**Autonomous National University of Mexico**  
Mexico City  
2016

Technological Development of the i-CARE: remote monitoring system of physiological variables of pain.

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## Research Projects

- Science Research about the efficacy of Behavioral and Cognitive Therapies in the regulation of cortisol, prosocial behavior and stress in children with oncological diseases. Neuroscience Lab at the University of Colima Research Fund: FRABA 2009-2011
- Evaluation of the i-CARE app remote monitoring system of psychological variables of pain in hospital children. Postdoctoral Fund 2014-2015 at the National Autonomous University of Mexico
- Effectiveness of i-CARE in the regulation of physiological variables, iL-6, Cortisol and perception of pain in acute pain. Research fund: PRODEP-PTC
- Biomarkers in non-feverish pain. Research Fund: PAPPIT- National Autonomous University of Mexico and Autonomous University of Querétaro.

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## Honors & Awards

- “Peña Colorada Prize 2005”, for the best student in Master degree. University of Colima.
- Youth State Prize 2005, “Gustavo Vasquez Montes”, for research in protecting vulnerable children in Colima, Mexico. Instituto de la Juventud de Colima.
- “Irene Robledo Prize 2010”, for the best social program in health psychology at the center-occident region of Mexico. Comisión Interuniversitaria de Servicio Social (CISS) and University of Guadalajara.
- “National Prize for Social Service 2012”, for the best social program in health psychology in Mexico. Comisión Interuniversitaria de Servicio Social (CISS) and University Autonomous of Sinaloa.
- 1st place among PhD researchers of “Sistema Mexicano de Investigación en Psicología (SMIP)” and “Red Fusion in Health Psychology of Mexico”.
- Contest to become Researchers and full time professors “Titular A”, in University of Colima, 2017.

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## Publications

### Papers.

- Guzmán Sandoval Verónica Miriam, Plascencia Hernández Arturo, Castellanos Morfin Juana de la Luz, Quintanilla Montoya Roque (2011). Cultura hospitalaria y el proceso narrativo del niño enfermo. Estudios sobre las Culturas Contemporáneas. Revista de investigación y análisis, ISSN1405-2210, XVII (33). <http://www.redalyc.org/articulo.oa?id=31618563003>. Revista indexada: Redalyc, Latinindex.

Abstract – Hospital Culture and the Narrative Process in Children. This article focuses in the traumatic experiences of girls and boys hospitalized, which impact their perception of wellness, as well as how do they construct their reality during the internment. This is part of the hospital culture, institutional vision that influences the way for users to perceive and interact with them, then that the hospital becomes a transmitter of meanings, which strengthen or weaken the role of patients and their families. The narrative of the events experienced during a medical placement shapes an active and daily process of reconstructing of the reality. The goal of the investigation was to analyze the narrative of girls and boys in infectious orthopedics and pediatrics services to know how they perceive the hospital, and analyze the impact of narrative in the restructuring and resignification of the trauma experience. Methodology: we worked with five children and girls with ages between 7 and 14 years, interned in the field of infected pediatrics’ and orthopedics of the civil hospital Fray Antonio Alcalde in Guadalajara, Mexico. The working sessions were individual and consecutive, with duration of one hour and a half. For the exploration two interview guides were used, the first one covered life prior hospitalization and the hospital experience; the second one explored indicators of anxiety and strategies for confronting stress. The narrative of each child was analyzed using the methodology of Bertaux. Results: the factors that affected the perception of the hospitable culture were: the age of the participants, the internment time, previous hospitalizations, the capacity for confrontation and the duration of the received psychological support. It was observed that the narrative process allowed to the participants to go out of his saturated plot and to view the problematic from other perspectives and to identify positive aspects of the hospitalization like: constant familiar accompaniment, support of the medical personnel and paramedic, acquired learning and the importance of the hospital in his recovery. Thus the narrative is associated with a cultural process through which patients modify and resignify their traumatic experiences in order to cope with their health plan for life. Key words: Hospital Culture, Sick Child, Narrative Process

- Rodríguez Medina David A, Domínguez Trejo Benjamin, Cruz Albarrán Irving A, Morales Hernández Luis, Guzmán Sandoval Verónica Miriam (2016). Termografía aplicada a psicología de la salud: utilidades, retos y estudio de caso. Revista de Psicología, ISSN1992-2736, 1(13), 76-88. Revista indexada Latinindex.

Abstract. Thermography applied to Health Psychology: utilities, challenges and case study. This documental and clinical research presents the use of infrared thermal imaging to their application in Psychology of Health, its definition, its utilities, its dare and clinical direccion. For that we expose a case study of twin sisters 10 years old whit anxiety symptoms to a psychophysiological assessment protocol. Facial movements were built of an expression of joy, fear and pain, and relaxation. The results indicate an autonomic activity of perinasal region, nose and fingers of hands increase its temperature accord to positive facial

expression and relaxation, similar to thermal biofeedback. Their potential use in research and clinical practice is concluded. **Key words:** Thermography, Emotional Facial Expression, Accion Units, Relaxation.

- Guzmán Sandoval V, Pimazzoni, D., Dominguez, B. y Guzmán, J. Manejo psicoterapéutico del dolor a través de la música y el tacto. Estudios sobre las culturas contemporáneas, 24(47), 9-40. Latin index.  
<https://www.redalyc.org/jatsRepo/316/31655797002/indiel>

Abstract: Psychotherapeutic Management of Pain Through Music and Touch in Neonates: the Sentire Method. Society needs to form some kind of knowledge of pain and a collective memory to remember it. In the case of neonatal pain, a psychologist must be a spokesman for pediatric pain because the pain that is not seen it is not socially recognized. It is therefore necessary to demonstrate what is happening in the Mexican hospital environment in order to contribute to the documentation of pain research in neonates and to propose efficient and multidisciplinary solutions that humanize pediatric pain management. One way of doing research on pediatric pain through multidisciplinary procedures is using music. It is well known that music represents an universal language that has clearly therapeutic effects, due to non-invasive and experiential exposure to the sensations and emotions caused by the human being. Music, as language, acquires the influence of the social context in which it arises. In this sense, the structural characteristics of music have cultural influence; therefore, a melody will be significant in the memory of a girl or boy when she/he is exposed to it from an early age until it takes shape in the process of enculturation through which the infant grows and recognizes the qualities of music and language in this her/his own cultural environment. Music is therapeutic insofar as it becomes an auditory and tactile sensory experience that elicits emotions. Thus one way of doing hearing is the second sense that forms itself, after touch, during embryonic development, which is why an embryo can perceive sounds in the womb. At birth, the ear of the newborn can differentiate the bass from the treble sounds, and differentiate the voice of his/her mother from the voice of other women. The sound of a sweet voice, resembling the mother's voice, is a kind of touch that has relaxing and therapeutic effects in neonates, which helps regulate his/her pain. Consequently, pain management must be a multidisciplinary effort by the clinical staff of the Neonatal Intensive Care Unit to improve the quality of hospital life of infants in the Neonatal Intensive Care Unit (NICU). Psychotherapeutic management through music and touch is effective, harmless, comprehensive and inexpensive compared to drug treatment. This study analyzes the effectiveness of the SENTIRE method, a psychotherapeutic strategy based on music and touch to reduce pain in neonates in the NICU of the General Hospital Zone No. 1 of the Mexican Social Security Institute (IMSS, in Spanish). In order to do this, a prospective-descriptive pilot study was applied choosing 8 infants from the NICU. In the findings, changes in the physiological parameters of heart and respiratory rate were found with the SENTIRE method, as well as posture and facial changes, all of which are indicators of pain in neonates. Keywords: Pediatric Pain, Music, Touch, NICU.

#### Book Chapters.

- Verónica Miriam Guzmán Sandoval, Isaac Uribe Alvarado (2013). El proceso narrativo en el niño enfermo hospitalizado. ISBN: 9786074823455. Título del libro: La investigación social en México. Editorial: Universidad Autónoma de Hidalgo.
- Verónica Miriam Guzmán Sandoval, Benjamín Domínguez Trejo, (2016). Medición de variables fisiológicas e intervención en el dolor pediátrico hospitalario a través de tecnologías emergentes. ISBN: 9786079453688. Título del libro: Investigación en psicología básica y aplicada.
- Verónica Miriam Guzmán Sandoval, Benjamín Domínguez Trejo, Rosalba Rodríguez Barragán (2018). El dolor social en la narrativa de experiencias traumáticas de niños y niñas que sufrieron violencia. ISBN: 9786074229080. Título del libro: Perspectiva psicosocial de los derechos humanos. Editorial: Universidad Autónoma del Estado de México.
- Guzmán, V. Domínguez, B. Gaytán, L. (2019). Abuso sexual infantil. Una propuesta desde el modelo traslacional y la computación afectiva. Universidad de Guadalajara.

#### Books

- Guzmán Sandoval Verónica Miriam, Davide Nicolini Pimazzoni (2014). La narrativa musical en el pensamiento y la expresión emocional en la niñez. ISBN: 9786079039493. Secretaría de Cultura
  - Domínguez, B., et al. (2019). Manual de usos clínico de mediciones autonómicas. Universidad Nacional Autónoma de México.
  - Guzmán Sandoval Verónica Miriam (2006). Jugando a Sanarte. La narración en la atención emocional de niños hospitalizados. ISBN: 9685556741. Secretaría de Cultura
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**Skills**

- Clinical and neurosciences skills
- Measure of psychological and physiological variables
- Technology development
- Skills teamwork in translational medicine

**Languages****English****References**

[https://www.researchgate.net/profile/Veronica\\_Guzman\\_Sandoval](https://www.researchgate.net/profile/Veronica_Guzman_Sandoval)