

The Institute for Nonverbal Language Integration for Being at our Best

“Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.” Margaret Mead

ORGANIZATIONAL PLAN

MISSION:

The Institute for Nonverbal Language Integration (INvLI) explores the efficacy and applications of the theory of Nonverbal Language Integration (NvLI) as a natural biobehavioral tool for self-regulation. Self-regulation involves restoring mind/body balance to focus attention, optimize effort, enhance learning, and promote well-being. NvLI defines a phylogenetic self-regulatory relationship between the omohyoid muscle, specific nonverbal language behaviors, vagus nerve activation, and precuneus stimulation. It argues that this integrated neurophysiological relationship can be exercised naturally through these nonverbal language behaviors. NvLI demonstrates how specific innate postures, body/facial movements, and vocalizations involving the omohyoid muscle activate vagus nerve pathways for positive engagement and stimulates the precuneus for accomplishing integrative cognitive tasks.

INvLI's mission is accomplished by maintaining a networking platform that serves three primary purposes: 1) research the theory of NvLI in regard to applications, outcomes, anatomy and physiology involved, and etiology of regulation differences; 2) provide education regarding NvLI; and 3) promote interprofessional collaboration regarding the efficacy and applications of NvLI across disciplines.

VISION:

INvLI empowers people to be at their very best at any time and any place.

RATIONALE:

The theory of NvLI shows how voluntarily exercising the integrated biobehavioral system of self-regulation is important for wellbeing and maintaining a state of engagement for optimal learning. Innervating vagus nerve pathways shifts physiology away from the stressful flight/fight reactions of the sympathetic nervous system to the parasympathetic nervous system (PNS) state of homeostasis. This is the state of restoration, digestion, and social engagement. The precuneus is important for making associations, integrating external and internal information for perspective taking, motor planning for accomplishing goals, and recalling events (episodic memory).

NvLI uses evidenced-based research to explain how innate nonverbal language behaviors (including vocalizations) involving omohyoid muscle action regulate the autonomic nervous system and stimulate the brain for critical thinking. Omohyoid activation 1) innervates the vagus nerve pathways to restore the PNS; 2) stimulates the precuneus in the medial portion of the parietal lobe; and 3) exercises the PNS and

precuneus. The vagus nerve pathways restore the PNS for wellbeing, rapport, and positive engagement. Research shows that vagus nerve activation also increases vigor and maintenance of effort. Stimulating the precuneus engages integrative cognitive functions involving insight, perspective taking, motor planning, and learning. Both the vagus nerve and precuneus are crucial for self-regulation.

Self-regulation is not only important for optimum health but also for the social skills of maintaining authentic rapport, which promotes cooperative communication and learning. NvLI identifies specific innate nonverbal language behaviors as tools for targeting the omohyoid muscle. Therefore, infants (through touch and imitation) to the elderly can sexercise and tone vagus nerve pathways and enrich the precuneus naturally to improve self-regulation for optimum engagement, cooperative communication, learning, and well-being.

RESEARCH STRUCTURE:

INvLI's research goal is to assist with research regarding the theory of NvLI in terms of its applications, outcomes, anatomy and physiology involved, and etiology of regulation differences. The research structure follows the guidelines of evidence-based practice (EBP) set by the American Speech and Hearing Association (From asha.org Webinar: Evidence-Based Practice Tools for Practicing Clinicians). EBP involves 1) external scientific evidence 2) clinicians' expertise and 3) the perspectives of the client, family, and/or caretaker.

1. **External scientific evidence** involves methodologically-sound research. One form, synthesized evidence, combines the findings from individual studies and provides conclusions about a body of evidence. External scientific evidence includes evidence-based clinical practice guidelines. Systematic reviews identify, appraise, and synthesize empirical evidence (typically individual studies) that meet predetermined eligibility, and quality criteria to answer a clinical or research question. Those conducting the systematic review then provide qualitative conclusions based on the studies.
2. **Clinical expertise** involves our own training, knowledge, and expertise within our professions scope of practice. It also refers to the expertise of our colleagues. When external evidence is insufficient, a guideline group may formulate recommendations for its efficacy based on expert knowledge and experience.
3. **The perspectives of the client, family member, and/or caregiver** is also known as social validity. It is important for the provider to gain insight into how the recipients feel about the service they are receiving. The recipients' perspectives are necessary to judge if the intervention is important to in regards to preferences and culture. It is also important that the outcomes being addressed are important or of interest to the individual and social unit.

INvLI embraces three important principals regarding research.

1. It combines clinical evidence, scientific evidence, and the client' perspective. Practitioners must "combine their clinical expertise with a body of specific research findings that are valid, reliable, and clinically relevant. By consciously seeking and using scientific evidence as the foundation for their clinical services, SLPs [speech-language pathologists] and audiologists [as well as other professionals] become clinical scientists" (Apel and Self, 2003).
2. Its focus involves ethnological qualitative designs. Ethnologic qualitative designs [in real life communication settings] that use participant/observer strategies are an acceptable form of research. "Such an inductive procedure permits the researcher to make open-ended observations and watch general patterns emerge; this approach contrasts sharply with the deductive approach of experimental design in which the dependent and independent variables are specified before data collection" (Friel-Patti, 1994).

3. It utilizes interprofessional collaboration to imagine ways to research how NvLI can inspire the best in people. There are speech-language pathologists and audiologists [and other professionals] who are “imaginologists.” “They routinely flex their creativity muscles to drive our profession forward by imagining more and imagining better for the patients, clients, and students.” We all “can build our capacity to imagine more and imagine better” by moving away from “if only” and towards “what if there was a way to inspire...” (Robertson, 2019).

EDUCATIONAL STRUCTURE:

INvLI’s educational goal is to help empower individuals and groups to be at their best cognitively, emotionally, and socially in order to engage in actions that promote personal and community wellbeing. This goal fits within the area of education/instruction in health literacy rather than within a therapy or coaching model. INvLI views self-regulation as an important component of the World Health Organization’s mandate for health literacy.

In 2016, the World Health Organization (WHO) broadly defined health literacy as “having the ability to gain access to, understand, and use information in ways which promote and maintain good health for themselves their families and their communities” (The World Health Organization, 2016). In addition, the WHO stated that health literacy acknowledges that cognitive and social skills are needed for the “achievement of a level of knowledge, personal skill, and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions.” And finally, by “improving people’s access to health information, and the capacity to use it effectively, health literacy is critical to empowerment.”

According a clinician’s manual published by the American Medical Association Foundation, poor health literacy is associated with worse health outcome. This “relationship between limited health literacy and poorer health occurs in all socioeconomic groups ...” Two of the causes of low health literacy are deficits in health knowledge and lack of self-empowerment. “In fact, evidence shows that patients often misinterpret or do not understand much of the information given to them by clinicians.” This can lead to adverse outcomes (Weiss, 2007).

Of great nationwide concern is that only 12% of Americans have proficient health literacy (Agency for Healthcare Research and Quality, 2013). It is also well documented that emotional reactions to negative health information interfere with listening to and recalling important information. This suggests that even the 12% who do have health literacy may not recall important information when a diagnosis and/or plan triggers stress. An individual’s health literacy can be improved by confirming understanding and by “adopting a patient-friendly communication style that encourages questions” (Weiss, 2009). NvLI shows how this is not about a smile but requires authentic rapport that promotes self-regulation within both the instructor and listener.

Through instruction, NvLI brings forth consciously what the innate human body/mind does unconsciously when stress arises. It begins with the role of the omohyoid muscle in self-regulation. This phylogenetic process of self-regulation exists across the lifespan from neonates to the elderly. NvLI explains how self-regulation can be strengthened through instruction that promotes individual and caretaker awareness of the biobehavioral process and the benefits of exercising it naturally through a specific category of nonverbal language behaviors.

COLLABORATIVE STRUCTURE:

INvLI's collaborative goal is to provide a platform that supports interprofessional collaboration regarding the efficacy and applications of NvLI across disciplines. Collaborators have acquired a basic understanding of the theory of NvLI through live instruction that is in-person or over the internet. They are encouraged to gain additional understanding through self-study. Mentoring support is provided to collaborators who are including NvLI instruction within their scope of service.

Participants represent a wide range of professions that involve working with people. Examples of collaborators (but not limited to) include physicians, nurses, speech-language pathologists, occupational therapists, physical therapists, psychologists, educators, clergy, and athletic trainers. Graduate students who are interested in researching NvLI may also participate.

Collaboration is accomplished as a volunteer network. There are no subscriptions or dues. Collaboration is accomplished via the Internet through group correspondence and virtual gatherings (such as on Zoom). Participants are also encouraged to network with each other outside of INvLI. Independent study is currently available at:

- Basic information on NvLI is available at no charge and without solicitation at <https://nonverballanguageintegration.com/>
- The guidebook for clinicians, *Nonverbal Language Integration for Exercising Vagus Nerve Pathways: Introducing the Theory and Practice of Enhancing Rapport through Pragmatics* by Dorothy Bohntinsky is available at https://www.amazon.com/Nonverbal-Language-Integration-Exercising-Pathways/dp/1734140607/ref=sr_1_1?crid=31I3LPXT7H2NK&dchild=1&keywords=bohntinsky&qid=1617987584&sprefix=Bohntinsky%2Caps%2C200&sr=8-1
- While INvLI is not affiliated with any organizations, subscribers to SpeechTherapyPD.com can access a two-hour course. View the course at: <https://www.speechtherapypd.com/courses/Enhancing-Rapport-by-Activating-Vagus-Nerve-Pathways-thr-125>

THE INSTITUTE OF NvLI FOUNDER AND NvLI AUTHOR

Dorothy Bohntinsky, M.A., CCC-SLP, D.Min., has been a speech-language pathologist (SLP) since 1976, primarily in healthcare's continuum of care. She is certified as an SLP by the American Speech Hearing and Language Association (ASHA) and is licensed as a SLP by California. She also holds a California specialty teaching credential for providing speech and hearing therapy. In 2006, she earned her D.Min. with emphasis in universal principals for resolving grief. That same year, she was ordained as an Interfaith minister after graduating from The Chaplaincy Institute, a seminary in Berkeley, CA.

The theory of NvLI was born out of Dr. Bohntinsky's continuing passion to help individuals with communication and/or swallowing challenges and their families manage the stress that arises from health, cognitive, and/or physical challenges in order to achieve maximum benefit from evidenced-based practices. She attributes her ongoing inspiration to the loss of a 14-year-old daughter in January 2000 after a four-month battle with myelodysplastic syndrome. However, her dedication to NvLI comes from her intentions for her family, including her three grandchildren, to thrive.

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World Health Organization <https://www.who.int/healthpromotion/health-literacy/en/>