Surf Therapy Practice, Research, and Coalition Building: Future Directions

Guest Editors

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Author Biographies: Kristen H. Walter, is a Clinical Research Psychologist at the Naval Health Research Center in San Diego, California, where she investigates the treatment of posttraumatic stress disorder (PTSD) and conditions that commonly co-occur with PTSD, such as major depressive disorder (MDD), and traumatic brain injury. Dr. Walter explores both evidence-based treatments for PTSD and co-occurring conditions, as well as complementary and alternative approaches. She is an Investigator on several Department of Defense-funded trials, including randomized controlled trials comparing evidence-based psychotherapies for co-occurring PTSD/MDD and another comparing two activity-based interventions (surf and hike therapy) for MDD. She is also a privileged clinical provider at Naval Medical Center San Diego and a licensed psychologist in the states of California and Ohio. Gregor V. Sarkisian, Professor, has taught in the Applied Community Psychology specialization within the M.A. clinical psychology program at Antioch University Los Angeles since 2005. Dr. Sarkisian began working with the Jimmy Miller Memorial Foundation (JMMF) in 2015 where he has served as a volunteer surf instructor and more recently as the Director of Research and Evaluation for JMMF to better understand the benefits of surf therapy for youth at-promise and U.S. veterans. Since 2018, Dr. Sarkisian has been a member of the International Surf

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Therapy Organization (ISTO) and he is actively engaged in coalition building, the dissemination of research on surf therapy and serves as a technical consultant to programs interested in developing surf therapy program evaluations. Giovanni Martínez, is a licensed Clinical Psychologist in Puerto Rico, the Founder/Executive Director of the 501(c)3 non-profit organization, Surf4Dem, Inc., and Advisor to the Board of Directors of the International Surf Therapy Organization (ISTO). Surf4DEM offers children and families affected by Autism Spectrum Disorder an environment of support to connect and share by creating opportunities and enjoying the therapeutic benefits of surf therapy. As a Clinician Dr. Martinez has vast experience working with Neurodevelopmental Disorders in particular ASD, in relation to the clinical evaluation, training and program development. His background on research comes as an Adjunct Professor at the Medical Sciences Campus University of Puerto Rico, his research focus on aspects of Public Health and Development of Alternatives Methods of Intervention for children with ASD. Philip B. Ward, is a clinical neuroscientist and UNSW Sydney professor of psychiatry who has always loved body surfing. Phil is a passionate advocate for building the evidence base for surf therapy and is inspired by the positive vibe that surrounds surf therapy and the people who support it. He is a founding partner of the International Surf Therapy Organization, and a board director of the Waves of Wellness Foundation.

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Abstract

Articles in this Special Issue of the Global Journal of Community Psychology Practice on Surf Therapy Around the Globe have focused on theory development, practice considerations, empirical research, and coalition building in order to advance the field of surf therapy. In this concluding article, the Guest Editors highlight the ways in which the collective work in this Special Issue expands on the current literature in terms of theory, as well as processes and outcomes for different programs across a variety of populations across the globe. Suggestions for conducting future studies on surf therapy are provided in order to build an even stronger knowledge base in this area. Finally, initiatives set forth by the International Surf Therapy Organization are presented in order to foster coalition building, participant inclusion, social justice, research and evaluation, and public advocacy. Collectively, this article aims to summarize the work highlighted in this Special Issue and pave a path for surf therapy practice and research going forward.

This Special Issue of the Global Journal of Community Psychology Practice on Surf Therapy Around the Globe explored the current state of theory development, coalition building, program development, evaluation and empirical research on surf therapy. The collection of research in this Special Issue adds to the literature and science of surf therapy and represents the most comprehensive collection of research on surf therapy to date. While the practice of surf therapy varies greatly between programs, benefits have been observed for a variety of populations, and research using grounded theory has identified common characteristics across programs with differing interventions and populations. There is a growing body of research on the benefits of surf therapy and a need to engage in more rigorous approaches, from observational designs to studies utilizing comparison groups and randomized controlled trials. The global coalition efforts auspiced by the International Surf Therapy Organization have enhanced the growth of surf therapy practice and research over the three years since its foundation.

Research highlighting components of surf therapy that might play an important role in its effects include processes such as empowerment and respite. Psychological empowerment, while only explicitly mentioned in one evaluation study (Gomes et al., 2020), is a central process at play in most surf therapy programs. Through engaging in the physical activity of surfing in an unpredictable but fun ocean environment, participants must focus attention on each moment while learning to ride a wave. The focus of mind and body required by the ocean environment simultaneously brings respite, a break from trauma symptoms, or from being stigmatized due to being part of a disenfranchised group. Respite could be a catalyst to changing one’s perspective on where they stand in their sociopolitical environment. Additionally, through accomplishing the challenge of riding a wave in a socially supportive group, one could view this experience as a small win that could be applied to different challenges (Weick, 1986).
Surf Therapy Practice and Implications of Grounded Theory Research

Marshall et al. (2020) developed a grounded theory based on the experience of U.S. veterans that articulates empowering processes of surf therapy and reflects the programming and evaluation findings presented in this special issue. At their core, most surf therapy programs provide participants with the opportunity to take on the challenge of learning to surf at one’s own pace and to experience surfing in a non-judgmental and socially supportive group. As a result, many participants experience respite through the focus required by the activity of surfing, social connectedness to fellow-surfers, and a sense of accomplishment that is transferrable to other activities. Outcomes include improved psycho-social wellbeing, decreased isolation and symptom reduction (Marshall et al., 2020). In previous research, Marshall et al. (2019) developed a similar grounded theory based on the experiences of vulnerable youth in the U.K. While both studies involved different programs serving different populations, the processes and outcomes experienced by participants were very similar (Marshall et al. 2019; Marshall et al., 2020). How can surfing bring similar benefits to people experiencing different challenges – vulnerable youth and veterans with combat-related PTSD?

The complexity of the above question increases when one explores the variation in surf therapy program delivery on at least five dimensions: (1) Population(s) served, (2) surf instructor preparation and methodology of instruction, (3) dosage (i.e., session frequency, duration and program length) of surf therapy, (4) additional program activities apart from surfing and (5) outcomes measured. Despite this, Marshall et al.’s (2019; 2020) grounded theory research provides a starting point to conceptualize the common elements of surf therapy programs along these dimensions.

In addition to advances in understanding the theoretical foundations of surf therapy practice, this Special Issue included two articles that have broadened opportunities to promote better modes of direct communication among youth with disabilities, who may be more comfortable communicating through the integration of visual techniques (Britton et al., 2020; Van der Merwe & Yarrow, 2020). Britton et al. (2020) used body mapping, integrating visual representations of the body-mind environment, to facilitate increased communication about complex emotions. Van der Merwe and Yarrow (2020) utilized Makaton symbols, six visual symbols representing emotions, to better communicate with participants during surf therapy sessions. Van der Merwe and Yarrow (2020) identified four areas in which program adaptations were made from meeting the needs of a neuro-typical to a neuro-diverse population which were consistent with the structure of the more established Surf Project program described by Van Ewijk et al. (2020) – integrating visual communication, incorporating routine and structure into regular operations, maintaining a low surfer-surf-instructor ratio, and, training for surf therapy program staff on positively interacting with youth with disabilities.

For programs serving vulnerable youth, there is variation in how vulnerable youth are defined as a population, program dosage ranges from one day to three years, and there are a wide variety of program activities outside of surfing (Sarkisian et al., 2020; Devine-Wright & Godfrey, 2020; Gomes et al., 2020). Yet, the common threads of surf therapy programming which emerged in Marshall et al.’s (2020) grounded theory findings (emergent categories of surf therapy intervention) are embedded in the practice of all six programs serving youth with disabilities and vulnerable youth – tackling a challenge at one’s own pace and being part of
a social environment that provides a familial, non-judgmental safe space for participants.

**Surf Therapy Program Evaluation and Empirical Research**

Over the past ten years, there has been a growing body of program evaluation on the benefits of surf therapy. In a scoping review of the research evidence on surf therapy, Benninger and colleagues (2020) conducted a search of peer-review journals, books/chapters, theses and dissertations which yielded 29 studies. Table 1 presents the characteristics of the 8 additional studies on surf therapy included in this special issue, bringing the total number of studies to 37. With the exception of one study (Snelling, 2015), all programs that have published results reported benefits to participants. These benefits have been measured primarily through observational pretest-posttest designs on outcomes such as wellbeing and health although there have been two studies that utilized a randomized controlled trial design (Snelling, 2015; Walter, et al., 2019a). While the observational pretest-posttest design is an accepted practice among community-based organizations, and serves as a means of reporting to funders - critical to program sustainability - it does not offer sufficient rigor to clearly provide causal inference for changes in outcomes. A roadblock to conducting more rigorous research such as quasi-experimental or experimental designs is the research capacity of surf therapy programs which is often limited by funding, research expertise, or both of these elements.

**Recommendations for Future Program Evaluation and Research**

Due to a dearth of surf therapy studies that use experimental designs in the current literature, it is difficult to fully evaluate the impact of surf therapy. Although several studies in this Special Issue promote the science of surf therapy with more stringent study methodology, there are ways that future research could further advance the field. Specifically, including comparison groups, establishing common metrics and assessment tools, identifying the optimal dosage and duration of effects, determining how surf therapy is best used (e.g., as a stand-alone or adjunctive intervention), and distinguishing the components of surf therapy that provide the greatest benefit are ways to improve our understanding of the impact of surf therapy.

Few studies to date in the surf therapy literature (Otis et al., 2020; Rosenberg, 2014; Snelling, 2015 for exceptions) included a comparison group, let alone use more rigorous methods, such as randomized controlled trial (RCT) designs. RCTs – a design where each participant is equally likely to be assigned to an intervention/group within a study – provide rigorous evidence for intervention efficacy. Although RCTs have been used in the field of surf therapy (e.g., Snelling, 2015; Walter et al., 2019a), these trials may not be feasible in some surf therapy programs due to practical, ethical, or resource limitations. To date, the majority of surf therapy research has focused on program evaluation that measures changes in participants over the course of a surf therapy program. Program evaluation can serve as an initial step, but does not shed light on whether reported changes are due to surf therapy, time, concurrent interventions, or other factors. If more stringent program designs are not feasible and program evaluation offers limited utility, surf therapy should at least incorporate a comparison group. For example, studies could compare one surf therapy program to another or include different samples in the same program (e.g., children with primary physical or psychological concerns; veterans compared to civilians). A comparison group allows examination of differences in effects due to different factors for each group (e.g.,
sample, program, duration, etc.) and thus whether the outcomes are more generalized or circumscribed. Future research should use the most rigorous methodology that is feasible in a given setting to advance surf therapy research.

**Table 1**
Characteristics of Studies on Surf Therapy Included in the 2020 Special Issue on Surf Therapy Around the Globe

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Population(s)</th>
<th>Focus of Therapy</th>
<th>Research Design</th>
<th>Sample Size</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britton et al., 2020</td>
<td>Youth with ASD</td>
<td>Self-development, Interpersonal skills &amp; Wellbeing</td>
<td>Participatory Community Research</td>
<td>12, 10</td>
<td>Body Mapping, Semi-Structured Interviews</td>
</tr>
<tr>
<td>Devine-Wright &amp; Godfrey,</td>
<td>Vulnerable youth</td>
<td>Health &amp; Wellbeing</td>
<td>Observational Pretest-Posttest, Mixed Methods</td>
<td>155, 10, 347</td>
<td>Stirling Children's Wellbeing Scale, Warwick-Edinburgh Mental Wellbeing Scale, Rosenberg Self-Esteem Scale, Interviews, focus group</td>
</tr>
<tr>
<td>Gomes et al., 2020</td>
<td>Vulnerable youth</td>
<td>Self-development, Interpersonal skills &amp; Wellbeing</td>
<td>Observational Pretest-Posttest</td>
<td>69</td>
<td>Strength and Difficulties Questionnaire</td>
</tr>
<tr>
<td>Marshall et al., 2020</td>
<td>Veterans with PTSD</td>
<td>Psychological &amp; Mental Health</td>
<td>Grounded Theory</td>
<td>18</td>
<td>Semi-structured interviews</td>
</tr>
<tr>
<td>Otis et al., 2020</td>
<td>Active duty service members with PTSD, MDD or both</td>
<td>Psychological &amp; Mental Health</td>
<td>Repeated measures longitudinal design</td>
<td>47</td>
<td>PTSD Checklist for DSM-5, Patient Health Questionnaire, Generalized Anxiety Disorder Scale, Positive and Negative Affect Schedule, Positive Affect Schedule Children's Hope Scale, Participant drawings and related text</td>
</tr>
<tr>
<td>Sarkisian et al., 2020</td>
<td>Vulnerable youth</td>
<td>Mental Health &amp; Wellbeing</td>
<td>Observational Pretest-Posttest, Mixed Methods</td>
<td>152</td>
<td>Focus Groups, Makaton symbols</td>
</tr>
<tr>
<td>Van der Merwe &amp;</td>
<td>Youth with ASD</td>
<td>Self-development, Interpersonal</td>
<td>Case Study</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>
Another avenue for the field of surf therapy is to establish a common set of metrics and assessment tools to be used among populations and outcomes. Among published surf therapy studies, there is a wide array of assessment instruments used to measure outcomes, including many measuring similar constructs (see Benninger et al., 2020 for a thorough review). It is critically important to identify well-established assessment tools that are validated for the subpopulations in which they are used and that can be used across programs. For constructs in which established and validated measures do not exist, care should be exercised in developing and empirically evaluating new measures. Furthermore, standardized measures and approaches should be established for both qualitative and quantitative research, which address different research questions, but when jointly deployed greatly enhance our knowledge about surf therapy. Establishing common assessment instruments is crucial as it allows for comparison between studies, populations, and outcomes, which ultimately serves to build a global research base for surf therapy.

An important goal for future surf therapy research is to identify the optimal dose of surf therapy programs in terms of session frequency, duration, and program length. Similar to other medical or psychological treatments, determining the length of each surf therapy session and how many sessions are needed to yield a given physical, psychological, or functional outcome is vitally important. Not only does distinguishing the sufficient dose allow for greater benefit for participants, it also assists with efficient utilization of resources. Furthermore, identifying the duration and sufficient number of surf therapy sessions will improve the accuracy of surf therapy research in that outcomes can be better evaluated in the context of whether or not the person received an adequate dose of surf therapy to produce a given benefit. In addition, it is essential that future surf therapy studies include repeated and follow-up assessment time points to determine not only the immediate outcomes of surf therapy, but also how long any benefits are maintained. This will provide important knowledge about the benefits and limitations of surf therapy programs and how they can best be utilized for the benefit of participants. Future research studies should analyze outcome data by sessions attended and the duration of sessions so that optimal dosage can be ascertained, as well as frequently assess outcomes during surf therapy programs and after programs have been completed so that the duration of effects can be established.

A critical consideration in surf therapy research is whether surf therapy provides the greatest benefit as an adjunctive or stand-alone intervention, and for which populations or conditions. Very few surf therapy studies acknowledge the use of other interventions by participants or report these data (see Walter et al., 2019b for an exception), which is necessary for understanding the independent effects of surf therapy.
therapy may enhance benefits from other interventions and be most appropriate as an adjunctive intervention, which is the most suitable recommendation based on the current data available. It is also possible that surf therapy could serve as a stand-alone intervention producing significant benefits to participants, but there is limited data to suggest that surf therapy alone can yield sufficient benefits to participants for a given condition. Adequately assessing and reporting on the use of other interventions by surf therapy participants and determining outcomes for those receiving surf therapy as an adjunctive intervention versus surf therapy alone will help to address this in future research.

Finally, research has begun to explore an array of outcomes associated with surf therapy – many highlighted in this special issue. Even though more outcome research is needed in the field of surf therapy, future research efforts should start to determine which components of surf therapy programs account for the greatest amount of change in outcomes (i.e., dismantling designs). For example, a study could compare a surf therapy program delivered with only the surfing component to the surfing component combined with a psychosocial intervention. This research would elucidate whether the psychosocial component accounts for change in outcomes and if so, how much. Additionally, Marshall and colleagues (2019) present elements of surf therapy programs such as surfing activity, ocean environment, participants, surf instructors, peer mentors, and equipment that can ultimately affect program outcomes, whether directly or indirectly. Furthermore, exploring how surf therapy facilitates changes in symptoms and functioning, such as providing a respite from concerns, creating a safe physical and emotional space, offering opportunities for social connection, and fostering experiences that are challenging, but approached through self-selected pacing (Marshall et al., 2019; Caddick et al., 2015) can provide insight as to the unique aspects of surf therapy that affect change. Identifying the ‘active ingredients’ of surf therapy and the processes by which they work is fundamental for the future development and implementation of surf therapy programs.

Taken together, surf therapy research has largely focused on program evaluation, which has provided initial support for its effects on various health and psychosocial outcomes. However, the current state of surf therapy research should be enhanced in order to expand our understanding of its use and application. Future research should incorporate more rigorous research design elements, standardized assessment measures, and identify the optimal frequency and duration of programs.

The Role of the International Surf Therapy Organization (ISTO) in Coalition Building

The International Surf Therapy Organization (ISTO) is a collective of surf therapy programs, researchers and influencers working to collaborate on research, share best practices and advocate the benefits of surf therapy (http://www.intlsurftreatment.org). ISTO held its third conference in November, 2019 and has grown from eight to more than sixty contributing member surf therapy organizations in three years. Utilizing the collective impact model as coalition building framework (Kania & Kramer, 2011), some elements of the collective impact model were helpful (i.e., shared leadership, common agenda, reinforcing activities, and continuous communication) and others more challenging (i.e., the approach feeling top-down, difficulty agreeing on a common agenda, shared measurement, and uneven contribution and follow-through from programs) in moving coalition efforts forward (Mattila, 2020).

Participant Inclusion and Social Justice
Moving forward, ISTO has an opportunity to address some of the inherent challenges of the collective impact model (Wolff, 2016) through broadening its efforts at participant inclusion and social justice. For instance, many of the program directors of surf therapy programs have direct relationships to participants as family members, such as a veteran with PTSD running a program for veterans with PTSD or a psychologist with a family member with ASD who runs a program for youth and families with ASD. With coalition members who already have a connection and personal investment in the well-being of populations being served by surf therapy programs, it is likely there will be widespread support for more participant-inclusive and social justice-oriented coalition practices. ISTO plans to develop additional opportunities for participants to be included in the coalition as well as to develop a social justice working group within the coalition that would include participants from surf therapy programs (Mattila, 2020). Through greater inclusion of participants in program development and coalition building activities, the greater the likelihood that the diverse experiences and skills of participants will allow for collaborations that address gaps in the field and expand opportunities for participant-driven, social justice focused initiatives.

Research

ISTO has an important role in fostering research by facilitating collaborative relationships, advocating for empirical evaluation and supporting research initiatives that will push the knowledge on benefits to surf therapy forward. One area in which this has already begun is through collaborations that developed from ISTO conferences. ISTO could support more formal research mentoring initiatives to develop a network that matches surf therapy programs with a researcher’s skillset, by region, language, and population served. For example, the third author of this article has provided mentorship to surf therapy programs in Latin America (where Spanish is the primary language) and the target population is children with ASD or other neurodevelopmental disorders. These relationships were initiated and fostered at the ISTO conferences and via related social networks (e.g., the ISTO web page, http://www.intlsurftherapy.org) Through experienced researchers mentoring other surf therapy programs where those delivering the program had less research experience, programs can enhance their empirical research capacity in an efficient and informed manner.

ISTO has also developed a shared research toolkit that includes the measures used by contributing organizations. Future goals include establishing core sets of recommended assessments for different populations, and developing population-specific research groups among contributing organizations to support multi-site research using common measures.

Policy Advocacy

One of ISTO’s stated goals is to develop an evidence base to support health funding agencies to include surf therapy as a standard form of healthcare. The more rigorous forms of research and evaluation methods that were outlined previously will be crucial in providing a compelling evidence base to support funding proposals for surf therapy. If surf therapy research expands to utilize such research designs, funding of programs could potentially occur on par with other evidence-based therapeutic approaches. As editors, we are confident this special issue will provide the impetus for further development of surf therapy programs, and more rigorous research to elucidate the many benefits of surf therapy that improve the well-being of program participants.
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