

PTSD therapy using man-made surfing program; Alternative of the ocean therapy

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Abstract

High-intensity sports such as surfing may provide a treatment alternative since the sport incorporates physical, psychological, and environmental challenges that come from speed and training. The current therapy using surfing has been based in an ocean environment, as the term, “ocean therapy,” suggests. This study, however, seeks for a way man-made surf parks can provide an alternative to conventional ocean therapy with its controlled and comfortable environment from the perspective of surfer and non-surfer particularly with Post Traumatic Stress Disorder, suggesting an occupational incorporated therapy program.

Keywords: *Theme park, Surf Park, PTSD, Mental Health*

1. Introduction

How do you define a surf park? Is it a place for a sport, hobby, or fitness activity? The surfing industry belongs to all these categories, and now it has expanded even more to touch the tip of the theme park industry with the advent of a man-made surf park. Surfers are returning to the line-up and to the ocean to satisfy their thirst for bigger waves and challenges. But the ocean rarely provides regular, predictable waves, as surfers need to regularly check the height of the waves, wind direction or even keep an eye on the forecast for dangerous typhoons. However, with the latest advances in technology, we no longer need to study wave charts or the typhoon forecast but merely make a reservation online.

In October 2020, Wave Park, the world’s largest man-made surf park, opened in Siheung, South Korea. Wave Park incorporates the wave-generating technology from Wavegarden, an engineering company engaged in the research and design of wave generating systems

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headquartered in San Sebastian, Spain. The technology excels in its precise control of wave frequency and wave types. Waves build, grow and roll over continuously every eight seconds, which adds up to a maximum of 1,000 waves in an hour. From Waikiki waves to tube waves, these waves can accommodate first-time beginners who have learning to surf on their bucket lists to professional surfers as well.

However, what does the surf park business forecast for the future of the theme park industry?

Both the expectations and needs of visitors to wave parks must be different from theme parks. This article will provide a picture of the ultimate goal of the surf park business from my perspective as a visiting customer and answer the following questions: what are the strengths of Surf Park beyond just being an alternative of the ocean but as a place for everyone to enjoy surfing? In answering this question, "everyone" refers to the general population whether they are surfers or non-surfers, suffering from post-traumatic stress disorder or not.

2. What is post traumatic stress disorder and how can surfing help people with PTSD?

Post-Traumatic Stress Disorder (PTSD) is a mental disorder that develops after exposure to a traumatic event (Kirkpatrick, et al., 2014). The traumatic event could be considered a single incident such as a traffic crash, physical or sexual assault. People who develop PTSD experience significant changes to their cognitive processes which interfere with carrying out routine daily tasks such as remembering details, paying attention, and solving problems. Therefore, they are at increased risk of poor physical health and less likely to engage in physical activity.

How then can PTSD be treated? There are already several remedies such as psychological therapy, self-help programs and drug treatment. In addition, high-intensity sports such as surfing may provide a treatment alternative since the sport incorporates physical, psychological, and environmental challenges that come from speed and training (Morgan et al., 2001). It is certainly true that surfing can be classified and as a high-risk sport where both injury and even death are possible consequences (Diehm et al, 2004). For some, participation in surfing may be considered to be taking unnecessary risks involving a real chance of death or at least fear and anxiety (Brymer et al, 2008). Yet perhaps there may be something beyond this initial reaction to surfing.

The "International Surf Therapy Organization" is a global community of practitioners that collaborate on the therapeutic use of surfing for physical

and mental healing². There are many cases of sufferers who have benefited from surf therapy, which has led many mental health practitioners to conclude that there is a significant potential for healing by surfing the waves. Current therapy with surfing is known as “ocean therapy” which, as the name suggests, is based in an ocean environment. This study, however, seeks for a way man-made surf parks can provide an alternative to conventional ocean therapy since surf parks offer controlled and year-round comfortable environmental conditions.

3. Methodology

This study analyzes the responses from users who visited Wave Park and participated in questionnaires. The questionnaires were distributed to visitors who registered on the Wave Park website and agreed to receive SMS messages for marketing purposes.

3.1 Participants

The 192 questionnaire participants were of various ages from teenagers to older visitors in their 50s; among the 192, 77 were female and 115 were male. The largest age group was 30-39 year-olds (91 respondents), followed by 40-49 year-olds (61 respondents), 20-29 year-olds (26 respondents), 50 and over (11 respondents), and finally 10-19 year-olds (3 respondents). The questionnaires in this study were collected during a five day period from October 28 to November 1, 2020.

Table 1 Questionnaire participants(N=192)

Category	Number	%
Gender		
Male	115	59.8
Female	77	40.1
Age		
10-19	3	1.5
20-29	26	13.5
30-39	91	47.3
40-49	61	31.7
Older than 50 years	11	5.72

² <https://www.surfertoday.com/surfing/the-benefits-of-wave-pools-to-adaptive-surfers>

3.2 Questions

Participants were asked to complete a brief questionnaire identifying the purpose of surfing, surfing as a sport, and surfing as a stress-relieving activity.

4. Results

The first question participants responded to was on the purpose of surfing with multiple choice answers. The results showed that 69.8% saw surfing as a hobby, 65.1% saw surfing as a means to release stress or healing, 28.6% saw surfing as physical exercise, and 22.9% sought surfing out of curiosity and as a novel experience.

Table 2 Responses to the question of surfing purpose (Source: Wave Park marketing division)

Category	Number	%
To release stress	125	33.9
Hobby	134	36.4
A novel experience	44	11.9
Physical exercise	55	14.9
None of the above	10	2.7

When asked to rate the effectiveness of surfing as physical exercise on a scale of 1 (not likely effective) to 5 (very effective), 65.5% rated surfing as a 5 (very effective). An overwhelming percentage (84.9%) of participants rated surfing either as a 5 (very effective) or 4 (effective), thus supporting the contention that surfing is an effective physical form of exercise.

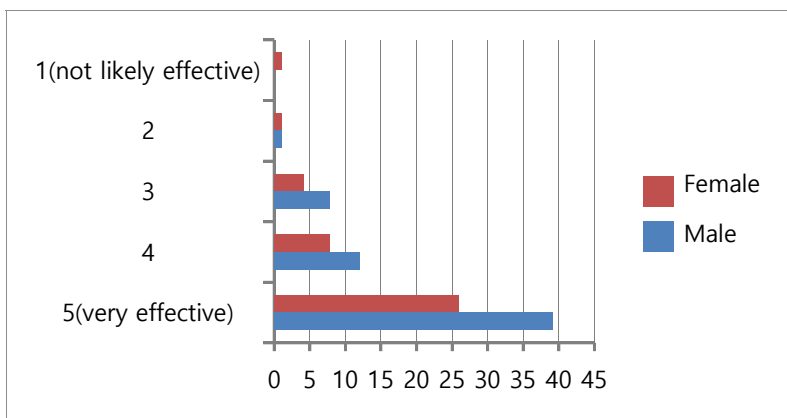


Figure 1 Responses to the question of the effectiveness of surfing as a workout (Source: Wave Park marketing division)

The last question asked participants to rate how effective surfing helps to decrease the level of stress on a scale of 1 (not likely effective) to 5 (very effective). The participants answering either 4 or 5 accounted for 89.5%. This again seems to demonstrate the beneficial therapeutic stress relief that comes from surfing.

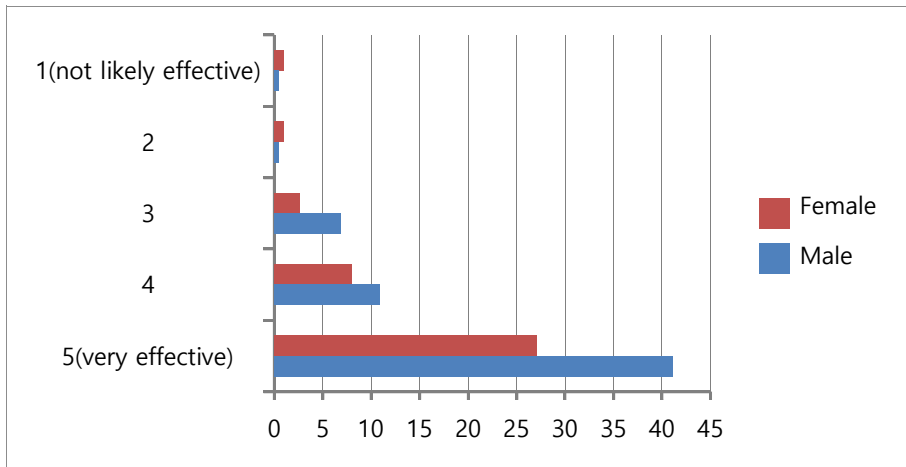


Figure 2: Responses to the question of degree of surfing to help release stress
(Source: Wave Park marketing division)

5. Discussion and Conclusion

The questionnaire results showed that customers who experienced surfing at Wave Park had a very positive feeling about surfing as a means to release stress as well as for physical fitness. This suggests that surfing therapy could be effective for both physical and mental disorders. Returning to the original question posed in this study, what can a man-made surf park do to provide surf therapy for both surfer and non-surfer?

5.1 Surf therapy from surfers' perspective

Bethany Hamilton is a well-known pro surfer who had a traumatic accident with her arms being bitten off by a shark; her personal journey to overcome challenges and achieve unimaginable goals continues to inspire many people around the world. While shark sightings are relatively rare in many parts of the world, they nonetheless represent the most dangerous and frightening risk to surfers. In addition, the unexpected movement of currents, typhoon storms, reefs, and rocks are ever-present natural dangers of surfing on the ocean. Like Bethany, there are surfers who are suffering from PTSD from exposure to unexpected and sudden dangers found only in the ocean.

Although she went through such an extremely traumatic experience, Bethany ultimately returned to professional surfing, which is explained by the “plateau experience” (Krippner, 1972). The plateau experience has removed her fear and instead triggered her motivation to control and face fear (Emmons, 1999). Surfing therefore can provide individuals that experience to confront and conquer fear. Ideally, people can be provided an opportunity to confront and conquer fear while removing the potentially life-threatening hazards of surfing in the ocean.

From this perspective, Surf Park offers a far safer setting. Surf Park regularly operates its water treatment system that maintains water hygiene. Also, the pool floor is like that of a swimming pool, thus providing a reassuring, safe surface for surfers to tread on. Wave Park, specifically, provides comfortably warm and steamed water during the winter which gives a pleasant and safe environment to surf in compared to the ocean. Now, surfers are able to dip their bare hands and feet into the warm waters of Wave Park in the middle of winter. Since December 2020, Wave Park has provided surfers a paradise of steamed water, which rises up from 15 degrees to 20 degrees Celsius. Heated water allows the park to control what was once an uncontrollable variable and allows surfers to surf all year around.

These physical settings provide a better option for surfers with PTSD to train while avoiding the dangers that may trigger PTSD in the ocean. Specifically, training would help enhance resilience to PTSD and further develop the ability to maintain one’s equilibrium despite exposure to unknown and unfavorable circumstances that would normally trigger (Ahmed, 2007).

5.2 Healing Waves from non-surfers’ perspective

The Wave, another surf park in England that incorporates the same technology as Wave Park, has started an adaptive surfing program. Adaptive surfing allows surfers with physical disabilities to enjoy riding the waves. The 4th annual World Adaptive Surfing Championship held in 2018 and organized by the International Surfing Association (ISA), evidenced the growth of adaptive surfing. People with autism, cerebral atrophy and dyspraxia have arrived at the Wave and learned surfing. Like the responses of Wave Park visitors, the responses from participants of the Wave were very positive as surfing has had a positive impact on behavior and happiness.

Therefore, Surf Park seeks to provide a space that is accessible physically to all people regardless of the physical and mental challenges they have in everyday life. Smooth access ramps, dedicated changing facilities, wheelchair

pathways and specially trained surf coaches would greatly help make the park accessible to all. Park can even target non-surfer with PTSD as well as occupational therapy practitioners who work with war veterans and injured fire-fighters.

5.3. Conclusion

This study suggests that a surf park should become an alternative place of ocean therapy with surfing for people with PTSD. The treatment plan may be incorporated as part of an occupational therapy program for different occupation groups. Only now has the water park industry begun to tap into the promising potential that has been unlocked with the latest technology of wave generation found in surf parks. In this regard, surfer and non-surfer do not see a surf park as a tranquil substitute for surfing the waves of the ocean but rather as a place for therapy or healing.

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