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# The Benefits of Taekwondo Training for Undergraduate Students: A Phenomenological Study

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Abstract: The purpose of this phenomenological research was to discover whether training in the Korean martial art of Taekwondo may benefit undergraduate (UG) students in handling stress. The goal of this innovative approach to learning and stress management was to allow UG students from across disciplines at a metropolitan university achieve an increased sense of emotional balance, inner peace, and overall well-being in body, mind, and spirit. No such study has been conducted before now. This research was multidisciplinary in its inclusion of insights from the tenets of higher education, human development and psychology, nursing and sociology, as well as the art, philosophy, and sport of Taekwondo. Ten UG student participants were sought for this research study, though a total of eight students agreed to participate. The study was open to all of the UG students at this university. Phenomenology was used to identify themes that emerged regarding student participant's experience with stress. Consequently, new ideas were established about the ways in which UG students learned to use Taekwondo training to overcome stress, thereby improving upon and maintaining health and well-being in body, mind, and spirit.

**Keywords:** Taekwondo; higher education; holistic health; human development; stress; undergraduate students

# 1. Introduction

Stress experienced by university students is an increasingly common occurrence that is associated with negative outcomes related to physical and psychological health [1–5]. For instance, students may experience the sense of being under psychological pressure [3,6,7], with academic stress affecting self-concept [8] and self-esteem [2,8]. Although stress may not affect all university students, research shows that an arguably significant number of students report experiencing stress. In 2013 alone, nearly a third of university students within the United States (US) experienced problems in functioning as a result of depression; and, approximately half of the university students in the US reported an overwhelming sense of anxiety [7].

Not only this, but maladaptive coping has been shown to be a primary predictor of psychological and other forms of stress [3], especially as students seek to establish a sense of belonging as well as friendships within the university environment [9]. Students may not know how to redirect stressful energy, and instead may turn to harmful activities such as alcohol and/or recreational drug use, overeating (i.e., 'stress eating'), and violence towards others or themselves as a means of coping.

One mechanism that is in place to assist students in coping with psychological stress pertains to the availability of counseling services within the university setting, especially as research demonstrates that mental health issues are common and persistent among university students [10,11]. Another mechanism with demonstrated value to university students in dealing with stress is that of physical exercise by means of a sport intervention [12,13]; and, this sort of intervention has been shown to contribute to improved psychological health [13]. Additionally, providing university students with a sense of hopefulness is a mechanism that contributes to well-being [14].

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Despite the aforementioned mechanisms that may lessen the effects of stress and its potential to hinder students in maximizing the potential for success on the personal and professional levels, only one research study to date examined the benefits of Taekwondo on the psychological health (i.e., mood) of university students [15]. Whereas, the study by Toskovic [15], examined a 90-min Taekwondo intervention, the same research study neither focused on holistic health and well-being, nor occurred over a longer period of time (i.e., two months) as is the case with the current research study on the benefits of Taekwondo training for undergraduate (UG) students. During the transitions experienced throughout adult development, UG students need to be able to redirect stressful energy into a more productive form. Perhaps then stress levels will decrease, thereby allowing UG students to possess an improved sense of well-being and the personal empowerment to handle the stress that inevitably occurs in life. That said, the operationalization of a Taekwondo intervention that focuses on holistic health and takes place over a longer period of time may contribute to UG students experiencing improvements in overall health and well-being in body, mind, and spirit. The effects of such an intervention will be discussed in this paper.

# 1.1. Relevance of Taekwondo to This Research

For centuries, martial arts were practiced as a means of control over one's body, mind, and spirit [16–19]. The Korean martial art known as Taekwondo is at its essence one of peace, as the most accomplished Taekwondo practitioners seek peace whenever possible for the individual as well as for the larger community [19]. Fighting and self-defense are used only when absolutely necessary; body, mind, and spirit are viewed as interconnected [17–19]. Learning to balance each entity contributes to health and well-being [16–19]. Ironically, peace often is more difficult to achieve than is the state of being stressed; training in Taekwondo may facilitate an increased peacefulness and wisdom in one's life [19].

Additionally, like other martial arts, Taekwondo is worth studying for a number of reasons. First, Taekwondo has its origins in Asia and Eastern culture. As is the case with martial arts that originated in the East, valuable life lessons may be learned through the study of Taekwondo [16–19]. Historically, these lessons pertained to respecting one another and to standing in solidarity with fellow human beings who are less strong in body, mind, and spirit [19]. Even today, these tenets apply along with the principles of using one's Taekwondo training only for good, and with peace as the ultimate goal [19]. Over the years, the influence of Eastern martial arts such as Taekwondo has expanded globally, thereby demonstrating to different populations of people around the world how to use their martial arts training to nurture personal growth and well-being [17–19].

Next, the popularity of, and respect for, Taekwondo are apparent by means of its inclusion within the Olympic Games [19]. Given that Judo was the first martial art to be featured as a part of the Olympic Games and then followed by the inclusion of Taekwondo, the future of the Olympics may involve other types of Eastern martial arts. Together, the various forms of martial arts will continue to expose people from around the world to the advantages of studying the ancient traditions of the Eastern martial arts as well as the countries and cultures from which these developed centuries ago.

Finally, in the United States, numerous children are exposed to Eastern martial arts like Taekwondo as a result of parents enrolling their children in Taekwondo classes. Parents may encourage their children to train in Taekwondo in order to build confidence when, for example, dealing with bullies at school. Parents also may want to encourage discipline and focus in their children for the purposes of receiving high grades in school. Children themselves may want to study martial arts like Taekwondo with the goal of earning a black belt [17,18]. Not surprisingly, some of these children are now adults and enrolled as undergraduate students who want to continue their Taekwondo training during the college years; and, when Taekwondo is offered as a (club) sport at the university level, student interest is evident in the growth and popularity of this martial art.

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#### 1.2. Insights from Club Taekwondo

Insights from Club Taekwondo at a metropolitan university contribute to the foundation of this research study. For such reasons, as well as the history of inner balance, harmony, and peace that characterizes Taekwondo [19], this particular martial art was chosen over another sport as the basis for the intervention included in this study. Although a new club within the ranks of club sports at this university, Club Taekwondo began in the summer of 2014, when the author collaborated with a number of UG students to start Club Taekwondo. Whereas, a minimum of ten students were needed to start Club Taekwondo, many more than ten contacted the author with the expressed interest of joining Club Taekwondo and learning about its benefits to health and overall well-being in body, mind, and spirit.

As the advisor for Club Taekwondo, the author has witnessed emotional and psychosocial development and growth, as well as improved physical fitness for the students involved with Club Taekwondo. Examples of emotional and psychosocial development pertain to several students finding the mental strength to deal with bullying and verbal insults from peers as well as from others outside of the university environment (e.g., in the work environment). Over the course of an academic year, at least one student shared about the importance of being more assertive when addressing bullies, while another student shared about the need to control one's actions and emotions even when someone else lacks this sort of control. Regarding the state of improved physical fitness, any number of students consistently demonstrated this through active participation in regularly scheduled practices and via involvement in Taekwondo tournaments that resulted in earning medals (e.g., gold, silver, and bronze).

Likewise, the Grandmaster from an established set of dojangs (training studios) graciously volunteers as the official coach for Club Taekwondo. The Grandmaster's expertise as one of the highest-ranking instructors (with an eighth-degree Black Belt) benefits students and their ability to learn the tenets of Taekwondo properly so that time spent training goes beyond a mere workout to stay physically fit. As advocated by the Grandmaster, training in Taekwondo offers the benefits of a healthy body, mind, and spirit that is focused on improvements to one's life.

Although numerous other types of sports clubs and varsity sports exist and are popular at this particular metropolitan university, students' interest in Taekwondo continues to grow since the inclusion of Taekwondo within the selection of club sports at the university. This is evident by the large numbers of students who join Club Taekwondo, as well as the sizeable number of student members who test for various belt levels during belt promotion tests overseen by the Grandmaster. Granted, students are able to choose the sports club and/or varsity sports in which to participate; and, arguably, students' choice of sport may contribute to a reduction in stress as well as improved health and well-being. Yet, to date, the benefits of students' participation in Taekwondo training over the course of time (i.e., two months) is not known, and, therefore, contributes to the basis for this phenomenological research study.

# 1.3. A Typical Taekwondo Training Session

The standard type of class session in Taekwondo lasts for approximately an hour and involves a few minutes of meditation at the start of the class in order to calm the mind, to clarify thoughts, and to focus on training. Next, five to ten minutes of stretching occurs so as to improve upon flexibility while 'warming up' the body for more rigorous kicking drills. As suggested, a series of kicking exercises takes place for part of the class along with the practice of poomsae ('forms'). Poomsae are reminiscent of competing against one's shadow in order to incorporate ancient teachings about self-defense while remaining non-violent and peaceful. Likewise, at times during class, students may practice breaking wooden boards in preparation for regularly scheduled belt promotion tests, in which students may advance from one belt level (e.g., white) to the next belt level (e.g., yellow) until the level of Black Belt is achieved. Class ends with a respectful bow to one another and to one's instructor (e.g., the Grandmaster).

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#### 2. Materials and Methods

This research topic has not been studied comprehensively. As a methodology, phenomenology is well-suited for inquiry into the benefits of Taekwondo for UG students in handling stress, particularly because very little is known about such benefits for this population of individuals. Phenomenology has its origins in the disciplines of philosophy, psychology, and sociology, and focuses on understanding the essence of experiences about a particular life event or occurrence (i.e., the phenomenon) [20]. Data collection uses face-to-face interviews with approximately 10 individuals; then, data analysis seeks to identify interviewer statements, meanings, and themes as well as a general description of the experience in question [20].

Likewise, phenomenology illuminates 'specifics' by identifying phenomena and their perception by individuals [21]. Phenomenology describes and interprets experiences [20–22]. In order to identify stress experienced by UG students, and how Taekwondo may decrease stress levels, the qualitative method of interviews will be used. Each student will be asked to participate in an interview prior to the intervention of Taekwondo training and then after completing this training. Within each interview of the two interviews, each of the UG students will be asked a set of open-ended questions. Although similarities exist between the two separate sets of questions, differences also are evident (See Appendixs A and B.) This intervention study was approved by the Institutional Review Board (IRB) at (the author's university) and was assigned the following approval code: 16-064.

#### 2.1. Analytical Process

Phenomenology allowed the author to identify the themes that arose from interviews with UG student participants. Heidegger's interpretive phenomenology was used, based on the assertion that impartiality cannot be achieved due to the researcher's involvement with the experience(s) shared by participants [21]. Because Heidegger's interpretive phenomenology supports the hermeneutic circle as a way to understand phenomena (e.g., stress experienced by UG students), the experiences, and knowledge shared between participants and the author served as the basis for interpretation of phenomena [21] as these pertain to stress in the lives of UG students. The analytic process of beginning with a priori categories (via the question sets in Appendixs A and B) and ending with themes that emerge was commensurate with the interpretive (hermeneutic) phenomenological method set forth by Heidegger [21].

Specifically, both of these sets of interviews were analyzed first for categories of responses; categories were created based on the frequency and type of responses given by participants when answering each of the interview questions. After forming the categories, the author scrutinized these in order to determine the themes that emerged to reflect the experiences of the participants. Once these themes were established, the author decided upon exemplars that accurately represented each theme through the exact words of the participants in describing particular experiences. Finally, the exemplars were interpreted with regard to stress as experienced by the UG student participants and the benefits of Taekwondo training in dealing with stress. Due to the characteristically small sample sizes of phenomenological studies, participants' responses were examined individually and then analyzed as a whole. Each of the participant's responses may have been part of more than one category or theme.

# 2.2. Sample

Ten UG student participants were sought for this research study, though a total of eight students agreed to participate. The study was open to all UG students at this university. Recruitment occurred through flyers posted on the campus of this metropolitan university and by word-of-mouth via students in the university's Club Taekwondo. Flyers were approved by the Institutional Review Board (IRB) for this university.

After informed consent was obtained from each participant, the author conducted two confidential interviews with each participant and then transcribed the interviews within 24 h. Each participant's

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name was withheld from both sets of interviews, the resulting transcripts and the interpretation that ensued by means of the phenomenological method. The author read the interview transcripts and then identified the themes that emerged according to the phenomenological method. Transcripts and resulting data were kept in a locked cabinet located in the locked university office of the author.

Specifically, after the first of two sets of interviews finished, each participant began two months of Taekwondo training during the summer of 2016. Training took place with the Grandmaster, a recognized expert in Taekwondo instruction and philosophy. Each student participated in one to two classes per week with the Grandmaster at his dojang/training studio. Students were responsible for their own transportation to and from Taekwondo classes and were not provided with any monetary or other tangible incentives so as to eliminate the possibility of coercion to participate in this research study. Then, after the two months of Taekwondo training finished, the students were interviewed again during the second set of interviews.

#### 2.3. Potential Benefits and Problems

This innovative research has the potential to transform the intellectual climate at this metropolitan university by means of an increased understanding of human development, stress management, and the overall health and well-being of UG students through the tenets of Taekwondo. As a result, students are better able to deal with stress inside and outside of the academic environment. Because this research was conducted during the summer, one student's need to relocate with family hindered the completion of this study; however, the seven remaining students were able to participate in both sets of interviews. Likewise, results of this research only refer to the UG student participants in this study. While generalizability does not characterize qualitative methodologies such as phenomenology, a larger sample nonetheless is necessary in order to make the case for the comparison and contrasting of the results.

#### 3. Results

Although the results of this research suggested that the stresses which existed before the Taekwondo intervention may be similar to (if not the same as) the stresses occurring after the intervention, participants' responses to the two sets of interview questions supported the idea that the intervention facilitated participants' ability to see beyond their experiences with stress. As evidenced through participants' responses to the first set of interview questions, stress existed in the form of academic concerns, financial difficulties, physical and psychological fatigue, strained relationships, and work-related tension, among other forms of stress. In response to the second set of interview questions, however, participants spoke of ways in which they learned to handle the aforementioned forms of stress.

Whereas, the Taekwondo intervention did not remove stress from the lives of this group of UG student participants, the intervention allowed participants to gain perspective on the experience of stress and how this may affect holistic health and well-being. This type of insight did not necessarily occur immediately for the participants. Rather, insight took place over the course of the two months of Taekwondo training with a qualified instructor proficient regarding both the long- and short-term effects of Taekwondo training on physical, psychological, and spiritual health. With this in mind, a review of the results of the two sets of interviews occurred.

# 3.1. The First Set of Interviews

# 3.1.1. Responses to Questions 1 and 1a–1c

In response to the first question and its three sub-questions (See Appendix A), student participants shared that their experiences of stress primarily resulted from school (e.g., their responsibilities as UG students), working outside of school as well as their financial situations. More specifically, in response to the first question, "What comes to mind when you think of stress?" (See Appendix A, Question 1),

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all eight participants (100%) expressed that school contributed to their stress levels. Six of the eight students (75%) expressed that they experienced stress due to working outside of school, while five of the eight students (62.5%) shared that their financial situations contributed to increased stress levels. Three of the eight students (37.5%) shared about stress related to family and/or friends, and one student (12.5%) shared that headaches resulted from stress.

These responses overlapped with those to the next question, "What kinds of stress are you experiencing at this time in your life?" (See Appendix A, Question 1a). As with the first question, the responses to this next question were grouped into the categories of school (n = 8), working outside of school (n = 6), finances (n = 5), family/friends (n = 3) and physical ailments (n = 1). These five categories established a foundation for emerging themes as described throughout this section and as pertaining to the first set of interviews. A few examples of the responses to the questions pertaining to stress as experienced at this time were as follows:

"Definitely work ... and trying to find a decent, well-paying job to keep the bills paid."—Student 1

"I guess financial stress ... Sometimes I feel like skipping a day (of work), but I can't because it is part of your paycheck ... Then there's my class that I want to pass with a (grade of) B or better."—Student 4

"I'm working a 9-to-5 job and trying to graduate college, so those are the two main stresses (in my life)."—Student 5

Interpretations of the aforementioned quotations suggested that UG student participants in this research study experienced stress as a result of working outside of the academic environment. The need for gainful employment may impact students' academic performance, particularly when a noticeable part of students' energy and focus must be channeled towards earning a living while enrolled in the university. If not for financial stressors, then students in this study may experience less stress as compared to that which is shared here.

When asked, "How are you handling this stress?" (See Appendix A, Question 1b), students' responses were more varied. Four of the eight students (50%) shared that exercise helped in handling stress; although inconsistent in regularity, types of exercise included biking, hiking, and walking. Students also shared that the following helped in dealing with stress: budgeting finances (n = 2), overeating (n = 2), recreational activities such as going to the beach, playing videogames, texting, or watching television (n = 2), spending time with friends (n = 2), trying to maintain perspective (n = 2), trying to stay busy (n = 1), and/or unsure (n = 1). From these eight categories, three themes emerged with regard to handling stress: addressing financial concerns, honoring personal freedoms and maintaining (versus not maintaining) perspective. Exemplars included:

"Honestly, I don't really know (how to handle stress). I just try to finish school and work as hard as I can and try not to break down and cry by stressing myself out. There's no real method at this time."—Student 2 (Theme: Maintaining vs. Not Maintaining Perspective)

"Right now, I am playing video games ... or I go to sleep, just to get away (from stress)."—Student 3 (Theme: Honoring Personal Freedoms)

"Budgeting and trying to get more hours in at work so that I can pay the bills."—Student 6 (Theme: Addressing Financial Concerns)

As evident from these statements shared by the students in this research study, a variety of ways to handle stress were used, including delving into outside employment or by playing video games. Likewise, not knowing how to address stress occurred as well. Arguably, certain approaches to dealing with stress may be viewed as 'escapism', in that the reality of one or more stressful situations possibly was avoided, at least temporarily.

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Then, in response to the question, "In what ways would your life be less stressful at this time?" (Appendix A, Question 1c), students shared that having a different job or not having to work while in school (n = 4), more money to pay bills and tuition (n = 3), and/or stronger support systems (n = 3) helped to decrease the amounts of stress experienced at this time. Likewise, having already graduated (n = 2) and/or improved family situations (n = 2) contributed to decreased levels of stress, according to the student participants. Two of the eight students (25%) also shared that if they were to stop overthinking, then life would be less stressful. From these six categories emerged four themes: addressing financial concerns, examining personal relationships, focusing on school responsibilities, and maintaining (versus not maintaining) perspective. Exemplars included:

"Probably if I had a different job; things seem difficult at work. Life is life, though, but my main stress is my job."—Student 1 (Theme: Addressing Financial Concerns)

"Having a good support team. Friends. You always have your family, but that changes over time. Making friends and connections is the best way to relieve stress."—Student 2 (Theme: Examining Personal Relationships)

"If I didn't have to work. If I already graduated, but that's life."—Student 5 (Theme: Focusing on School Responsibilities)

"If college (were) free, if I stopped overthinking and if people were more understanding." —Student 7 (Theme: Maintaining vs. Not Maintaining Perspective)

Once again, these statements shared by the students in this research study included stress related to working outside of the academic environment for gainful employment. The costs of attending classes at the university also contributed to stress, as did not having a strong support system while enrolled as an undergraduate student. Additionally, some of the student participants attributed stress to the ebb and flow of life, though more research is needed in order to explore whether this attitude may be a manifestation of escapism, hopelessness, or something else related to holistic health and well-being.

#### 3.1.2. Responses to Question 2

In response to the second question, "How do you think that stress affects your body?" (See Appendix A), nine categories of responses were formed. These included fatigue (n = 5), lack of productivity (n = 3), negative attitudes towards others (n = 3), difficulty sleeping (n = 2), headaches (n = 2), not eating enough (n = 2), overeating (n = 1), acne (n = 1), and sinus infections (n = 1). From these categories, the theme of experiencing physical ailments emerged in relation to the ways in which stress affects one's body. Exemplars of this theme included:

"Stress makes me feel tired and makes me not want to do things. Like on weekends, I do not want to get up, even though I have plans. I do not want to get up at all. Stress makes me lazy and inactive. It just doesn't make me productive, and that's not good."—Student 4

"I keep waking up at night. Usually, I sleep all night, but I am not sleeping right now. I have been breaking out, too. Also, I don't get that hungry anymore."—Student 7

As evidenced from these statements, fatigue and physical inactivity resulted from stress within this group of UG students. Appetite changes, as well as the lack of productivity, manifested themselves because of stress. Not only this, but even when 'down time' was available during the weekend, students may not have the physical energy to make the most use of the time in order to refresh and rejuvenate in a manner that enhances physical health and well-being.

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#### 3.1.3. Responses to Question 3

In response to the third question, "How do you think that stress affects your mind and thinking abilities?" (See Appendix A), a total of seven categories of responses were formed, including the lack of clear and logical thinking (n = 5), the feeling of being overwhelmed (n = 3), and the inability to take action as a result (n = 3). Feelings of helplessness (n = 2) and poor decision-making (n = 2), as well as being in a bad mood (n = 1) and developing headaches (n = 1) also resulted from the effects of stress on the mind and thinking abilities. From these categories, three themes emerged pertaining to the effects of stress on one's mind and thinking abilities: experiencing physical ailments, feeling vulnerable, and thinking poorly. Exemplars were:

"Focus is the core and is always disrupted. I'm more likely to make poor decisions." —Student 5 (Theme: Thinking Poorly)

"Sometimes (stress) makes me tired and so I don't want to think as much. So, when I am thinking for school, I don't want to do the work. I kind of get lazy. I mean, (stress) puts me in a bad mood. I get angry at people without intentionally wanting to be that way."—Student 6 (Themes: Experiencing Physical Ailments and Thinking Poorly)

"Well, I know that I overthink. I think of the worst scenarios about what could happen, and I cannot think of anything else except what is stressing me out until I can find a solution to that."—Student 7 (Theme: Feeling Vulnerable)

The ability to think clearly and meaningfully was affected by stress, as evidenced by these statements from UG students in this research study. Mood may be affected as well, with anger and negativity resulting from stress. Given that the ability to focus may be affected by stress, being able to handle this same stress effectively was hindered, thereby contributing to the proverbial 'vicious cycle' from which UG student participants in this research study may be unable to free themselves.

# 3.1.4. Responses to Question 4

In response to the fourth question, "How do you think that stress affects your spirit (e.g., attitude, disposition, essence, life force, outlook, temperament)?" (See Appendix A), four categories of responses were formed, including having a negative outlook on life (n = 5), difficulty in being around/getting along with people (n = 3), and poor work performance (n = 1). Likewise, two students (25%) shared that they tried to engage in religious or spiritual activities as a result of the effects of stress on their spirit. From these categories, three themes emerged in relation to the effects of stress on one's spirit: maintaining (versus not maintaining) perspective, nurturing one's spirit and thinking poorly. Exemplars included:

"I think that stress affects my spirit, especially in my attitude and has a big impact on it. Stress can change my attitude from happy-go-lucky to negative. Like at work ... this is not good because a lot of my work performance depends on my mood. (Stress) also affects my outlook. I will think that I am performing well (at work) ... and then stress comes in and changes things. All of the good work that I did, I don't think of ... I don't think of the end result. My outlook changes. It is not good."—Student 4 (Themes: Maintaining vs. Not Maintaining Perspective and Thinking Poorly)

"Well, I look at (stress) religiously. I think that, when I am stressed out, I look more towards my religion and spirituality and say to myself that it's in God's hands, not mine. I try to look at stress as it will eventually pass, even though it is stressful at that moment. It will pass. Tomorrow might be better, and that's what I tell myself when I'm stressed."—Student 6 (Theme: Nurturing One's Spirit)

"I know that last semester, I had a really bad attitude sometimes, just because I had so much stuff going on. Sometimes I would not be the nicest person to be around."—Student 8 (Theme: Thinking Poorly)

Attitude and outlook were affected by the experience of stress, as evident from the aforementioned statements. Potential interactions with other people were affected negatively as a result of stress. However, a sense of hopefulness was present for at least one of the participants in this research study. Religious and spiritual beliefs contributed to this sense of hope, too.

# 3.1.5. Responses to Question 5

The responses to the fifth question, "Is there anything else that you want to share about stress in your life?" (See Appendix A), students gave varying replies. Whereas, three of the eight students (37.5%) shared that they had no further comments, two students (25%) stated that they should not be as stressed as they are at such a young age. An exemplar statement was as follows:

"(Stress) is destructive, especially the negative stress. The good stress is okay. I need more positivity in my life, though, and more moving forward and not 'sweating the small stuff.' I shouldn't have to carry this kind of stress at this point in my life."—Student 1

Reminding oneself that stress is temporary was the response of another student:

"... the stress is only temporary. This summer is going to be stressful because of (working to pay for a car), and then once school starts, (the stress) will settle down; and, this sort of (Taekwondo) training will help, too, because it will take my mind off of things."—Student 6

Another student commented on the lack of a support system during the transition from high school to college:

"I don't think that there's a coping mechanism for the transition from high school to college or from college to the workforce, because your support system is gone. Once you have to deal with the stress on your own, you realize that you really don't know how to."—Student 2

Yet another student shared about the anticipation of training in Taekwondo as a means of relieving stress:

"... I'm just hoping that... when I do Taekwondo, this will help me to have an outlet for stress."—Student 8

Each of the aforementioned statements spoke to the theme of maintaining (versus not maintaining) perspective. Whereas, one student shared about a lack of understanding in how to handle stress effectively, another student suggested that the weight of the current stress should not have to be the case, especially at this age and stage of the student's life. At the same time, the potential for participating in the Taekwondo intervention contributed to students' awareness of a possible way in which to deal with stress more productively.

# 3.1.6. Synopsis of Themes and Their Interpretation

Overall, a total of nine themes were identified from among the responses given by the eight student participants in this first set of interviews. In alphabetical order, the themes are: (1) addressing financial concerns; (2) examining personal relationships; (3) experiencing physical ailments; (4) feeling vulnerable; (5) focusing on school responsibilities; (6) honoring personal freedoms; (7) maintaining (versus not maintaining) perspective; (8) nurturing one's spirit; and, (9) thinking poorly. Each of the nine themes should be interpreted within the context of the students' experiences with stress thus far in life.

#### 3.2. The Second Set of Interviews

Although the questions in the first and second sets of interviews shared similarities, differences existed in that the second set of questions were asked after the intervention of the two months of Taekwondo training with the Grandmaster. Whereas, eight students participated in the first set of interviews, only seven participated in the second set; one student's need to relocate with family hindered the continued participation in the study. Due to time constraints and the need to get to work, another student was unable to answer the second set of questions in their entirety.

## 3.2.1. Responses to Questions 1 and 1a-1c

In response to the first question and its three sub-questions (See Appendix B), student participants shared about their experiences of stress after training in Taekwondo for two months. Overall, in response to the first question, "Now that you have completed two months of training in Taekwondo, what comes to mind when you think of stress in your life?" (See Appendix B), the following three categories of responses resulted: (1) letting go of stress/not becoming as stressed as before (n = 4); (2) focusing on 'good stress' related to aspects of Taekwondo training (e.g., breaking boards, memorizing form sequences) (n = 2); and, (3) school and work (n = 1). Based on these categories, one new theme emerged: balancing 'bad' and 'good' stress. Also, two previous themes re-emerged: addressing financial concerns and focusing on school responsibilities. Exemplars of the new theme of balancing 'bad' and 'good' stress included:

"I think about stress now but do not dwell on it like I used to (before the Taekwondo training); stress pops up from time to time, but I let it go. (Stress) does not get to me like it used to."—Student 1

"I feel much better, actually, now that I went to the sessions. I feel so much better afterward ... All of the stress that built up on my body ... was relieved after the Taekwondo session. Despite the sweating and the driving (to the dojang/training school), the session relieved my stress."—Student 4

Responses to the question, "What kinds of stress are you experiencing at this time in your life?" (See Appendix B, Question 1a), were sorted into four categories: (1) not a lot of stress/only 'good' stress (n = 3); (2) finances (n = 3); (3) family (n = 1) and, (4) school (n = 1). From these categories, four themes re-emerged: addressing financial concerns; balancing 'bad' and 'good' stress; examining personal relationships; and, focusing on school responsibilities. Exemplars included:

"Essentially, the world is completely changing for me ... my family's lives are changing with someone getting married soon. So, everything is changing all at once, and there's a lot of newness and stress that comes with that."—Student 2 (Theme: Examining Personal Relationships)

"I'm just worried about school and getting started (for the Fall semester) and trying to finish up and graduate. That sort of thing. Taekwondo is a stress reliever."—Student 5 (Theme: Focusing on School Responsibilities)

"Even though still have to pay back my (school) loans, I really don't feel bad stress now. Just the good stress."—Student 7 (Themes: Addressing Financial Concerns, Balancing 'Bad' and 'Good' Stress)

In response to the question, "How are you handling this stress?" (See Appendix B, Question 1b), five categories resulted. These included taking one day at a time (n = 3), exercises in concentration/meditation (n = 1), going to church (n = 1), learning to wait/have patience (n = 1), and not overanalyzing everything (n = 1). From these, two themes re-emerged: maintaining (versus not maintaining) perspective and nurturing one's spirit. Exemplars included:

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"During our (Taekwondo) training, we would meditate or concentrate on movements and where we are in time and space. So, now if I encounter a situation where I feel stressed, I take a second and put that thing down that made me stressed. I breathe and think and concentrate and then regain my focus."—Student 1 (Themes: Maintaining vs. Not Maintaining Perspective, Nurturing One's Spirit)

"Right now, I am taking it one day at a time. I try to write down everything so that I don't miss anything. There are times when I do miss things . . . but, I cope by not dwelling on (stress) too much."—Student 4 (Theme: Maintaining vs. Not Maintaining Perspective)

Then, in response to the question, "In what ways has your life become less stressful?" (See Appendix B, Question 1c), four categories of responses resulted. These included learning to focus on one's own pace in life rather than that of others (n = 3), learning to interact more often with people (n = 2), expanding one's horizons beyond school and work (n = 1), and stopping the tendency to overanalyze (n = 1). Based on these categories, two new themes emerged while two of the previous themes re-emerged. The two new themes were: (1) expanding one's horizons, and (2) setting one's own pace; previous themes included examining personal relationships and maintaining (versus not maintaining) perspective. Exemplars of these were as follows:

"I believe that, before, what made me super-stressed was work and the expectations that come with work and the unhappiness of my superiors and the tasks that I would handle. Since training in Taekwondo, I have begun to move at my own pace and to focus less on the approval of everyone else and more on handling (the tasks) in front of me and taking things one step at a time. Going through the (Taekwondo) training helped me to think about things without rushing through them or needing the approval of someone else . . . The training helped me to process things better and to complete things better."—Student 1 (Themes: Maintaining vs. Not Maintaining Perspective and Setting One's Own Pace)

"I guess that my life is less stressful now in that I was not used to attempting to talk with family about things going on in their lives or in my life because all of our lives are changing. (Some family members) are moving away, but at least now there are more people talking, even though we are not close in location, we are still talking."—Student 2 (Theme: Examining Personal Relationships)

"I've been meeting new people and being encouraged by them. I have received some help along the way, I guess you could say."—Student 3 (Theme: Expanding One's Horizons)

Overall, the UG student participants in this research study continued to experience stress but attributed the ability to handle stress more effectively to the Taekwondo intervention. As suggested by the aforementioned statements, students were able to develop a different and more useful perspective in dealing with stress as this pertained to academic studies, relationships, or the workplace. The need for the approval of others was lessened as a result of the Taekwondo training, and at least one student participant commented on the willingness to be more open to discussions with family members. Additionally, the aforementioned statements suggested that student participants learned to approach circumstances and situations at one's own pace rather than that directly or indirectly urged by someone other than the student participant.

# 3.2.2. Responses to Question 2

Responses to the question, "How do you think that your body has benefited from Taekwondo training?" (See Appendix B, Question 2) were placed into four preliminary categories: (1) improving endurance/fitness/physique/strength (n = 4); (2) controlling eating habits and eating healthier foods (n = 2); (3) increased physical confidence (n = 1); and, (4) increased energy levels (n = 1). From these, emerged the theme of improving one's physical health. Exemplars of this theme included:

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"I know that I had been at least attempting to watch what I eat, not in a dieting way but with foods that are more nutritious. I am eating healthier now, or at least I am trying to eat healthier. Cucumber water is an example; it is very refreshing. I filter the water, and as soon as you take a sip, you feel refreshed . . . and, water is always good for you."—Student 2

"The exercise is wonderful. The advice from Grandmaster to keep things in perspective (while becoming fit) was very helpful. He told me about different exercises to do at home to keep my body in shape ... different routines for stretching, different workouts that you could do while not at the dojang. These all helped me to stay in shape and to become even more in shape."—Student 3

The responses pertaining to the effects of the Taekwondo on physical health were positive. Overall, the UG student participants in this research study noticed improvements to physical attributes such as endurance and flexibility, as well as the desire to use greater care in managing one's diet. Not only were energy levels increased in relation to the Taekwondo intervention, but confidence improved as well.

# 3.2.3. Responses to Question 3

In response to the question, "How do you think that your mind has benefited from Taekwondo training?" (See Appendix B, Question 3), three categories resulted from the students' responses. These included the experience of a calming effect and less anxiety (n = 4), emptying the mind of stress (n = 2), and processing ideas better (n = 1). From these emerged the theme of calming one's mind. Exemplars of this theme included:

"I am a little calmer, quicker to think instead of freaking out."—Student 5

"I think that I now I am not as anxious about the past. In the past, my mind was not fully present, but that has changed since training (in Taekwondo). I am more focused now."—Student 7

As can be seen through these statements, UG students who participated in this study reported improved thinking. This was evident by a sense of increased calmness as well as less anxiety in one's thoughts. Improvements to the abilities to be present in the moment and to focus were also reported as ways in which the Taekwondo intervention benefited psychological health.

#### 3.2.4. Responses to Question 4

Responses to the question, "How do you think that your spirit (e.g., attitude, disposition, essence, life force, outlook, temperament) has benefited from Taekwondo training?" (See Appendix B, Question 4) were grouped into three categories: (1) less quick to anger or become frustrated (n = 3); (2) increased confidence in oneself/one's abilities (n = 2); and, (3) increased enjoyment in life (n = 1). From these, re-emerged the theme of calming one's mind while the new theme of meeting life with confidence emerged. An exemplar included:

"Before ... things would bother me easily and so I would be quick to get frustrated or angry or to immediately let stress impact me. Now, though, because I am learning to find my own ... way, I think that I am not as quick to get angry or frustrated or to let stress affect me."—Student 1 (Themes: Calming One's Mind, Meeting Life with Confidence)

As was the case with the effects of the Taekwondo intervention on psychological health, the spiritual health, and the well-being of students in this research study improved as well. Not only did students share about greater levels of self-confidence, but the ability to experience life more joyfully occurred as well. As evident from the above statement made by one of the participants, the ability to respond rather than react was nurtured through training in Taekwondo.

## 3.2.5. Responses to Question 5

In response to the question, "Is there anything else that you want to share about stress?" (See Appendix B, Question 5), five of the seven students (71.4%) responded while two of the seven (28.6%) had nothing else to share at this time. After participating in the two months of Taekwondo training, students shared the following about stress:

"I learned that a lot of (stress) has to do with your own mindset. You can only be as stressed as you allow yourself to be."—Student 1

"I mean, stress is pretty much in everything because we care about everything we do, even when we do not realize that we care. It's how you handle the stress that matters."—Student 2

"There are many things that cause stress, but being in the dojang helps to work through your stress."—Student 3

"You yourself are the only person that makes stress worse."—Student 7

Overall, these statements spoke to the themes of balancing 'bad' and 'good' stress, calming one's mind, maintaining (versus not maintaining) perspective and meeting life with confidence. In giving participants the opportunity to respond freely and openly, the author sought to facilitate students' having a means by which to share any ideas or thoughts, regardless of whether these were negative or positive. Despite the fact that students responded in a succinct manner, meaning still may be gleaned from the pithy statements. Whereas, students did not deny that stress existed, they also realized the importance of actively managing stress and directing its possible outcomes.

## 3.2.6. Responses to Question 6

The responses to the question, "Is there anything else that you want to share about Taekwondo training?" (See Appendix B Question 6), all seven students shared that their experiences were positive. For instance, one student stated:

"I am glad that I had the experience and would have liked this (Taekwondo training) to continue. I loved the entire experience and everything that we get to do and learn. It is really great!"—Student 2

Another student participant shared that:

"I think that Taekwondo is good for everyone ... and really teaches you discipline and to try to improve. It's great for your body and to practice over the years. You can see your progress ... and the Grandmaster does a great job with the training. I did not know about Taekwondo before, but I am really glad that I tried it and plan to continue."—Student 4

Although student participants were encouraged to respond to this question in a manner of their own choosing, the replies nonetheless were overwhelming favorable regarding the Taekwondo intervention. This was evidenced by all of the UG student participants in this research study providing positive statements about the training. Likewise, students wanted to Taekwondo training to continue even after it ended.

# 3.2.7. Synopsis of Themes and Their Interpretation

In addition to the nine themes that arose from among the students' responses to the first set of interview questions, another six themes emerged as a result of the responses given by students to the second set of interview questions. In alphabetical order, these six themes include balancing 'bad' and 'good' stress, calming one's mind, expanding one's horizons, improving one's physical health,

meeting life with confidence, and setting one's own pace. Whereas, the nine themes that emerged from the first set of interviews were interpreted within the context of the students' experiences with stress prior to participating in two months of Taekwondo training, the six themes arising from the responses to the second set of interview questions were interpreted within the context of the Taekwondo training in which students participated. The two sets of themes were then collapsed into three key themes in order to understand the essence of the students' experiences with stress.

#### 3.3. Intersecting and Interwoven Data

In order to avoid restrictions on the intersecting possibilities of the data gathered within this phenomenological research study, the structure of addressing each of the interview questions separately was expanded further through the formation of three key themes. These were formed from among the nine themes that emerged from the participants' responses to the first set of interview questions, as well as from among the six themes that resulted from the second set of interview questions. The three key themes that arose from among the aforementioned fifteen themes are: (1) increased independence; (2) resoluteness; and, (3) vulnerability.

The first of the three key themes (increased independence) arose as a compilation of four previous themes, namely examining personal relationships, expanding one's horizons, honoring personal freedoms, and setting one's own pace. The second key theme (resoluteness) stemmed from five previous themes, including: balancing 'bad' and 'good' stress, calming one's mind, focusing on school responsibilities, maintaining (versus not maintaining) perspective, and meeting life with confidence. The third and final key theme (vulnerability) transpired from six of the previous themes; these included the following: addressing financial concerns, experiencing physical ailments, feeling vulnerable, improving one's physical health, nurturing one's spirit, and thinking poorly. The three key themes served as a transition between the fifteen themes, which originally emerged from the two sets of interviews to the three overarching themes discussed in the next section.

#### 3.3.1. Transition from Key Themes to Overarching Themes

Recall that fifteen themes originally emerged from among students' responses to the first and second sets of interview questions and were (in alphabetical order): (1) addressing financial concerns; (2) balancing the 'bad' and 'good' stress; (3) becoming more confident; (4) calming one's mind; (5) examining personal relationships; (6) expanding one's horizons; (7) experiencing physical ailments; (8) feeling vulnerable; (9) focusing on school responsibilities; (10) honoring personal freedoms; (11) improving one's physical health; (12) maintaining (versus not maintaining) perspective; (13) nurturing one's spirit; (14) setting one's own pace; and, (15) thinking poorly. These formed the basis for three key themes (increased independence, resoluteness and vulnerability) that served as a transition from the original themes to the final overarching themes.

Upon examination of the distinguishing properties of each of the three key themes in relation to the students' experiences with stress as the affecting body, mind, and spirit, the author developed overarching themes by bridging the original themes with the key themes so as to represent as accurately as possible the essence of the phenomena experienced by this particular group of UG students. Given that the triangulation was not integrated into the data analysis of this study, the three key themes contributed to an attempt at providing credibility of the findings. This process resulted in three final, overarching themes: developing and maintaining perspective; embracing and overcoming difficulties; and, honoring and nurturing oneself. (See Table 1.)

Themes from Interview One	Themes from Interview Two	Overarching Themes
Addressing financial concerns	Balancing 'bad' and 'good' stress	Developing and Maintaining Perspective
Examining personal relationships	Calming one's mind	Embracing and Overcoming Difficulties
Experiencing physical ailments	Expanding one's horizons	Honoring and Nurturing Oneself
Feeling vulnerable	Improving one's physical health	-
Focusing on school responsibilities	Meeting life with confidence	-
Honoring personal freedoms	Setting one's own pace	-
Maintaining (versus not maintaining) perspective	-	-
Nurturing one's spirit	-	-
Thinking poorly	-	-

Table 1. Original Themes and Key Themes Resulting from Interviews.

# 3.3.2. Developing and Maintaining Perspective

As seen through the categories and themes that resulted from among students' responses, stress affected students' outlook on life. Likewise, participation in Taekwondo training contributed to students having a more positive outlook and increasingly positive attitudes when handling stress. Themes that encompassed these ideas included: (a) balancing 'bad' and 'good' stress; (b) calming one's mind; and, (c) maintaining versus not maintaining perspective. Similarly, the themes of feeling vulnerable and of thinking poorly aligned with the development and maintenance of one's perspective about stress and its effects on holistic health in body, mind, and spirit, in that feeling vulnerable and thinking poorly provided students with a means of comparing and contrasting negative and positive perspectives over two months of Taekwondo training.

# 3.3.3. Embracing and Overcoming Difficulties

A second overarching theme of embracing and overcoming difficulties encompassed another five of the fifteen smaller themes. These included: (a) addressing financial concerns; (b) examining personal relationships; (c) experiencing physical ailments; (d) focusing on the school responsibilities; and, (e) improving one's physical health. As evidenced by the categories and themes that arose from among the students' responses to the interview questions, to some extent students credited Taekwondo training with providing them with a (renewed) sense of resolve to triumph over adversity.

# 3.3.4. Honoring and Nurturing Oneself

The last of the three overarching themes entailed honoring and nurturing oneself. The five smaller themes that logically contributed to a third overarching theme include: (a) becoming more confident; (b) expanding one's horizons; (c) honoring personal freedoms; (d) nurturing one's spirit; and, (e) setting one's own pace. Throughout the course of this study, students shared about increased confidence as well as the desire to expand their horizons to move (figuratively) from what they know and with which they are comfortable to that of approaching the unknown. After participation in the Taekwondo training, students aspired to engage in self-care as they learned to deal more effectively with stress. In this way, students actively began to cultivate their overall health and well-being in body, mind, and spirit.

# 3.4. Connections between Overarching Themes and the Taekwondo Intervention

Whereas, not all of the overarching themes were related to each individual aspect of the Taekwondo intervention in its focus on holistic health and well-being, connections between and among these categories and the Taekwondo intervention were apparent. First, in relation to the stress that students experienced in their lives before the Taekwondo intervention, the overarching

theme of developing and maintaining perspective was relevant; however, after the Taekwondo intervention, students' statements could be more appropriately categorized within all three of the overarching themes: (1) developing and maintaining perspective; (2) embracing and overcoming difficulties; and, (3) honoring and nurturing oneself. Next, although a weak relationship between the overarching themes and the Taekwondo intervention characterized the first set of interviews, a stronger relationship in this regard was evident with the second set of interviews. Specifically, student responses supported all three of the overarching themes and in relation to holistic health and well-being in body, mind and spirit. Taekwondo training enhanced the student participants' abilities to handle stress, thereby contributing to an improved physical, psychological, and spiritual health for this sample of UG students.

## 3.5. Limitations and Strengths

Perhaps one of the greatest limitations of this study pertained to its presumption that the Taekwondo intervention would produce positive outcomes for the UG participants. Due to the author's prior observations that UG students experienced benefits to health and well-being, as a result of Taekwondo training during regularly scheduled practices at the university, the author inadvertently entered this study with a preconceived "one-tailed hypothesis" of sorts. Although phenomenological methodology does not utilize directional hypotheses, the author nonetheless would have done well to explore whether Taekwondo also contributed to *increased* levels of stress and *decreased* numbers of benefits to holistic health. The inclusion of the sixth question ("Is there anything else that you want to share about Taekwondo training?") in the second set of interviews may not suffice as a way to identify possible negative aspects of Taekwondo training.

Subsequently, another limitation to this research study involved the idea that negative experiences with the Taekwondo intervention were not shared by the student participants, and for reasons that are not understood presently. For instance, if the negative experiences were shared by the students, then perhaps an additional theme (e.g., relating to escape mechanisms) may have emerged if students were to share about the use of alcohol, food, and the like, as a means of coping with stress. Future research on Taekwondo interventions for UG students would do well to maintain balance between the negative and positive outcomes of Taekwondo interventions. Likewise, any future iterations of phenomenological research such as that described in this paper will need to include triangulation techniques in order to establish multiple perspectives on the data and results.

At the same time, perhaps the greatest strength of this research study involved it as being the first of its kind. No study thus far has utilized a research methodology that was qualitative (e.g., phenomenology) or quantitative in order to determine the benefits of Taekwondo for UG students in relation to stress, as well as in holistic health and well-being. Thus, this research study contributes to the literature on stress experienced by university students through its originality by means of the focus on a longer-term (i.e., two months' long) Taekwondo intervention with an instructor who was trained in South Korea.

This study also contributes to the literature on holistic health and well-being for university students through the discussion of using a sport intervention (i.e., Taekwondo) to provide students with a helpful and practical way to handle stress, especially as this stress pertains to feelings of vulnerability, financial concerns, personal relationships, and poor thinking habits, among other forms of stress. Rather, this research study suggests that a sport intervention, such as Taekwondo training, may enable university students to handle stress by developing and maintaining perspective, embracing and overcoming difficulties, as well as honoring and nurturing oneself. Consequently, university students may find greater enjoyment, happiness, and hopefulness throughout the college years.

## 3.6. Significance of Findings against Existing Literature

In a more general sense, the results of this study inform the existing literature in a manner that connects holistic health benefits of a long-term intervention (e.g., Taekwondo training over the

course of months) and the ways in which university students handle stress. The findings from this study contribute to a greater awareness and understanding of the health and wellness of university students, as well as the potential impact on student matriculation and rates of attrition or retention. If, for instance, students are able to channel stress through a long-term intervention, such as training in Taekwondo, or in other forms of martial arts, then might this serve as a means by which students experience less anxiety, pressure, and tension in physical, psychological, and spiritual health and well-being? Additionally, the findings from this phenomenological study may contribute to the direction of future research studies with similar foci and questions. In attempting to expand upon this study, researchers may decide to: (1) increase the sample size, and therefore, the generalizability of results by developing quantitative studies and their appropriate methodologies; (2) inform the larger body of literature on stress and the holistic health of university students via the examination of the effects of long-term training in Taekwondo or other martial arts across academic institutions based on location (e.g., rural/small-town versus urban) and size (e.g., larger rural university versus larger urban university); and/or, (3) inquire into similar types of institutional programming already available within colleges and universities as well as the perceptions of these programs by students who actively participate.

#### 4. Discussion

What does all of this mean for students as they learn to handle stress while they are still enrolled at the university? To begin with, despite the small sample size of students participating in this study, all students overwhelmingly: (a) experience stress; and, (b) benefit from Taekwondo training as a means of dealing with stress. Taekwondo training contributed to students' ability to develop and then to maintain perspective amidst difficult circumstances. Likewise, students were able to embrace, and then to overcome, difficulties in conjunction with their training in Taekwondo. Not only this, but through Taekwondo training, students learned to honor and nurture themselves as they became increasingly confident of their abilities and talents.

Taekwondo training helped to instill in the student participants, an expanding sense of courage, self-respect, and the determination to improve upon their lives and themselves; and, the tenets of Taekwondo as supported and taught by the Grandmaster (instructor) likely facilitated the development of these characteristics in the participants. The tenets of the art, philosophy, and sport of Taekwondo pertain to the following: courage, determination, integrity, perseverance, respect (for oneself and for others), and self-control. Throughout the two months of exposure to Grandmaster's teaching about these principles during the Taekwondo intervention, students had the opportunity to find ways in which to interconnect these principles with life experience, as demonstrated in participants' responses to the second set of interview questions.

Because the intervention occurred over a period of time (as opposed to only one day's session, for example), this group of UG student participants had the opportunity to learn and train at a manageable pace that may prove conducive to developing positive behaviors and perspectives towards stress, thereby improving upon holistic health and well-being. Granted, future studies are needed that include an increased sample size so as to confirm or disconfirm the categories and themes discovered in this phenomenological study; but, the results of this research study provide a foundation upon which additional questions may be asked of UG student participants, including follow-up questions asked after a specific period of time has elapsed (e.g., "Are you still training in Taekwondo? If so, then how often do you train? If not, then why is this?"). This type of approach contributes to the rationale for longitudinal studies that involve UG student participants over the course of their college years, thereby providing deeper, richer insights into how students handle stress and its potential effects on holistic health and well-being.

Likewise, the results of this study may be placed within the context of similar types of sports, namely the Eastern martial arts. As mentioned earlier, in this phenomenological study, one researcher examined the psychological effects of a brief segment of Taekwondo exercise on college students [15],

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while other studies about the positive aspects of martial arts training suggest that Tai Chi, for instance, benefits physical [23] and psychological [24,25] health. Yet another study examined the effects of Karate and mindfulness training on the cognitive abilities of older adults [26]; however, a comparable study about the effects of similar interventions on the holistic health and well-being of undergraduate students may prove informative to the general knowledge base pertaining to the positive effects of Eastern martial arts on the experience of stress.

Whereas, studies such as these speak to the actual and the potential benefits of Eastern martial arts, no study to date has been conducted in relation to the experiences of undergraduate students in reducing stress and improving holistic health through Taekwondo training over a period of time. Because of this, the phenomenological study described throughout this paper provides a foundation for further understanding about the extent to which training in the Eastern martial arts contributes to different and similar effects on stress, as well as the holistic health of undergraduate students. Simply stated, greater breadth and depth of research is needed on the benefits of Taekwondo and all Eastern martial arts in reducing stress levels and improving upon the holistic health and well-being of undergraduate students.

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## Appendix A. Questions for Interview One: To Be Asked before Taekwondo Training Begins

From interactions with students at SCSU, the PI is aware of stressors experienced by students during their college years. This awareness on the part of the PI contributed to the formation of the following questions that will be asked of each student participant before s/he begins the Taekwondo training intervention:

- What comes to mind when you think of stress in your life?
  - What kinds of stress are you experiencing at this time in your life?
  - O How are you handling this stress?
  - o In what ways would your life be less stressful at this time?
- How do you think that stress affects your body?
- How do you think that stress affects your mind and thinking abilities?
- How do you think that stress affects your spirit (e.g., attitude, disposition, essence, life force, outlook, temperament)?
- Is there anything else that you want to share about stress in your life?

# Appendix B. Questions for Interview Two: To Be Asked after Taekwondo Training Ends

After the completion of each student's training time in Taekwondo, the PI will interview each student participant by asking the following questions that are similar and yet different than those asked prior to training in Taekwondo:

- Now that you have completed two months of training in Taekwondo, what comes to mind when you think of stress in your life?
  - What kinds of stress are you experiencing at this time in your life?
  - O How are you handling this stress?

- o In what ways has your life become less stressful?
- How do you think that your body has benefited from Taekwondo training?
- How do you think that your mind has benefited from Taekwondo training?
- How do you think that your spirit (e.g., attitude, disposition, essence, life force, outlook, temperament) has benefited from Taekwondo training?
- Is there anything else that you want to share about stress?
- Is there anything else that you want to share about Taekwondo training?

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