# Michael Emru Tadesse

## Martial arts and adolescents : using theories to explain the positive effects of Asian martial arts on the well-being of adolescents

## SOCJOLOGY

Michael Emru Tadesse
Mizan – Tepi University (Ethiopia)
e-mail: michael.emru7@gmail.com; phone number: +251912285077

# Martial arts and adolescents: using theories to explain the positive effects of Asian martial arts on the well-being of adolescents

**Abstract**

Problem. The main purpose of this paper is to explain, using theories, how practicing martial arts could help enhance the well-being of adolescents.

Method. The paper reviews and discusses literature regarding the nature of martial arts and the nature of adolescents and their well-being. In addition, study findings regarding the effects of martial arts and theories of well-being are discussed. The paper synthesizes these discussions into theoretical and conceptual frameworks. To do so, the paper emphasizes taekwondo (TKD) and the need-based theories of well-being.

Results. The paper showed that (1) the well-being of adolescents has different dimensions or adolescents have various fundamental needs; (2) the training of TKD has different components; and (3) the different components of the training help adolescents meet their fundamental needs, thereby improving adolescents' well-being

Conclusion. Need-based theories of well-being could be used by researchers and others to understand and explain why martial arts training improve the well-being of adolescents.

## Introduction

The use of theoretical frameworks has been very rare in the study of the role of martial arts on practitioners' well-being [Kellogg 2003]. Fuller [1988] cited in Kellogg [2003] advised researchers who study martial arts to use theoretical frameworks to explain how the effects produced by martial arts on the practitioners' well-being work. This paper is a contribution in that direction based on a review of literature. It specifically aims at explaining how participation in the martial arts training could help enhance the well-being of adolescents. In doing so, the paper particularly focuses on one of the most popular martial arts in the world, i.e., Taekwondo [TKD] [Park, Park, Gerrard 2009] as well as one of the many theories of well-being, i.e., 'Needing Theories' of well-being [Durayappah 2010].

This paper is organized as follows. First, a discussion on martial arts is presented. In this regard, the following points are emphasized: the origin and development of martial arts; classification of martial arts; philosophies associated with martial arts; TKD and aspects of its training. Then, a discussion regarding adolescence and adolescents

is presented. This includes: the definition of adolescence; views toward adolescents; the development of adolescents and associated challenges; and the well-being of adolescents. In addition, adolescents' participation in martial arts and research findings regarding the role of martial arts on adolescents' well-being are described. Finally, a discussion of theoretical and conceptual frameworks is presented to explain the mechanism by which the positive effects of martial arts on adolescents' well-being work.

## Martial Arts

### The origin and development of martial arts

The origin of martial arts can be linked to the biological and evolutionary nature of animals including human beings, which helped to secure adaptation and survival. It is believed that this martial nature of animals and humans is based on innate inclination toward physical aggression or violence. However, when it comes to humans, this inclination toward physical violence is shaped and controlled by culture, in terms of being cherished or despised in different circumstances [Levine 2002].

Martial arts have been practiced by humans for many centuries. The early development of martial arts is associated with the human quest for finding a better way of fighting and subduing enemies. At that time, martial arts were mainly practiced by the military segments of societies and were considered a military art (for example, the Samurai of Japan and the Hwarang of Korea). However, with the invention of gun-powder, the popularity of martial arts (which required acquisition of effective fighting skills using the body, sword, and other non-gun materials) among the warrior classes of different societies declined [Lewis 1996]. And, as a result of this, the focus of martial arts, especially of Asian martial arts, changed from being trainings for battles to being trainings for personal self-defense and spiritual development (personal growth, self-discipline, inter-personal growth, etc.) [Binder 2007; Lewis, 1996; Mainland 2010].

This redirection of the focus of martial arts, especially in China, Japan, and Korea, is associated with the centuries-old philosophies and/or spiritual ideologies of these countries, i.e., Taoism (Daoizm), Buddhism, Confucianism, Zen Buddhism, etc. The underlying philosophical assumption of this shift is best explained using the concept of *Budo*. In Japan *Bu* means "warrior" and *do* means "way" and together *Budo* means "the warrior's way". *Budo* underscores the relationship between physical training and spiritual development. And, if we observe many of the Asian martial arts, their names end with the "do", for example, Judo, Kendo, Iaido, Tang soo do, TaeKwonDo, Aikido, Hapkido, Karate Do, and Jeet Kune Do [Green 2001; Lewis 1996; Mainland 2010].

It is mainly after the Second World War that Asian (East Asian) martial arts were introduced to people in the West and other parts of the world. And, their popularity increased within a short time [Skidmore n.d.]. Because of contact with Asian people as a result of international conflicts and relocation of such people to North America and because of the film industry, the popularity of these martial arts highly increased, especially since 1970s [Cox 1993, cited in: Mainland 2010]. These days, Asian martial arts have become popular universally practiced sports [Vertonghen, Theeboom 2010].

**Classification of the martial arts**
More than 100 styles of martial arts exist in the world [Lewis 1996] and there have been different forms of categorization of these martial arts. Green [2001] asserts that the frequently used classifications of the martial arts are based on the development and conception of martial arts in Japan. In Japan the term *Bugei* refers to the overall name of the martial arts. *Bugei* means "martial methods". *Bugei* can be further divided into two categories, i.e., *Bujutsu* and *Budo*. *Bujutsu* means the "warrior's technique or skill" (*Bu* stands for "warrior" and *Jutsu* stands for "technique" or "skill." On the other hand, *Budo* means the "warrior's way" (*Bu* stands for "war-

rior" and *Do* means "way"). Martial arts in the category of *Bujutsu* are the ones which maintained the original purpose of martial arts, i.e., combat or fight. Examples of these martial arts include: Kenjutsu, Jujutsu, Ninjutsu, etc. Martial arts in the category of *Budo* are developed out of the original forms of *Bujutsu*. Some examples of these martial arts include: Kendo, Aikido, Judo, TKD, etc. The ultimate intention of these martial arts is not combat, but the development of the self in terms of its different dimensions, i.e., physical, mental, and spiritual.

Another way of classifying martial arts is as modern/sport and traditional martial arts. The modern martial arts focus on combat, competition, and the physical dimension of the art. On the contrary, traditional martial arts emphasize philosophy and tradition, pattern practice/*Kata*, respect, meditation, self-control, non-aggression, etc. These traditional martial arts are based on ideas from the Asian philosophies/religions. Nowadays, it is commonplace to observe that different martial arts have both traditional and modern versions, for example, TKD and Kung Fu [Greenwood 2009; Kellogg 2003; Nosanchuk, MacNeil 1989; Trulson 1986; Vertonghen, Theeboom 2010; Zivin *et al.* 2001].

Martial arts can also be classified as internal/soft and external/hard martial arts. The internal/soft martial arts are concerned with training the mind and developing the practitioner's energy or internal power ("Chi" or "Ki", in Chinese or Japan, respectively). In addition, these martial arts emphasize force-redirecting movements or techniques of defeating the challenger (using his/her own force against him/her). Some examples of this form of martial art include T'ai Chi chuan, Pa-kua, and Hsing-i (which are part of the Chinese Kung Fu) and Aikido (which is a Japanese martial art developed out of the Samurai's martial art of Jiu-jutsu) [Kellogg 2003; Lewis 1996; Skidmore n.d]. The external martial arts like Shaolin Kung Fu, Karate, and TKD focus more on the physical strength and its power, hand and body conditioning, strikes, and force-to-force techniques. This makes the external/hard martial arts more of aggressive instead of being defensive and passive [Kellogg 2003; Lewis 1996; Skidmore n.d].

Martial arts can also be classified as more comprehensive and less comprehensive. Two best examples of this classification could be the two Korean martial arts called Hapkido and TKD. While Hapkido is the more comprehensive one (as it includes techniques that are found in both the hard and soft martial arts), TKD is one of the less comprehensive martial arts (since it primarily focus on force-to-force or aggressive counterattacking techniques) [Kellogg 2003]. It is also important to note that we may classify martial arts based on their use of weapon. There are martial arts which are based on solely weapon (e.g., Fencing, Kendo, etc); which are weaponless (e.g., TKD, Karate, etc); and which combine weapons with the body (e.g., Kung Fu, Aikido, etc.) [Cynarski, Skowron 2014; Green 2001; Lewis 1996].

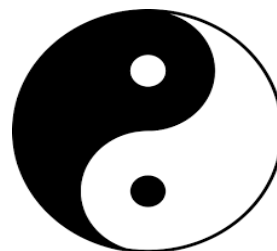**Martial arts and philosophies associated with them**

The contribution of Asian religions/philosophies and their temples/monasteries to the emergence of Oriental martial arts is usually controversial. It is frequently said that Asian martial Arts originated especially in the Chinese Buddhist monastery called Shaolin and spread all over the world. In this case, Lewis [1996] argues that the bases for the emergence, development, and spread of Asian martial arts are the religions of Taoism and Buddhism and their monks and priests. However, this account is not always accepted. For example, Henning [2011] asserts that martial arts originated not in monasteries and temples, but they were taken to the monasteries and temples by ordinary people from different walks of life including people who were in the military. In spite of this controversy, it is commonly agreed that different Asian religions/ philosophies have contributed to the development of Asian martial arts. These religions/ philosophies according to Lewis [1996] and Henning [2011] include Confucianism, Buddhism or Zen/Chan Buddhism, and Taoism/Daoism.

Confucianism, which was originated in China by the Chinese philosopher Confucius, is more of a philosophy than a religion. This philosophy emphasized doing the right thing, duty to parents, devotion to family tradition, and dedication to the truth and idealism. Buddhism is of Indian origin and introduced and spread to other parts of Asia including China, Japan, and Korea. However, the religion has lost much of its original form as it interacted with other religions and philosophies such as Confucianism and Taoism. One result of this interaction is the creation of Chan/Zen Buddhism. Taoist philosophy and Zen Buddhism are the ones that are mostly linked to martial arts. Both religions underline the harmony of body and mind to achieve salvation [Lewis 1996]. According to Henning [2011], while the Taoist temples are credited mainly for the development of the internal form of martial arts, Zen Buddhist monasteries are credited with the development of the hard form of martial arts.

Henning [2011] also underlines that that Taoist philosophy, which influenced both Confucian and Buddhist philosophy, is the basis of Asian martial arts' core philosophical conceptions. This core philosophical idea is based on how Taoists understand nature or the universe:

A fundamental teaching of the Taoist religion is that there is a natural harmony of all things, that everything in existence has its complementary opposite. These two opposing forces that flow into one another in a continuous state of change are known as Yin and Yang and they are represented by two symbols within a circle. Yin is the negative aspect of the universe and relates to female, night, cold, and it is seen as a black fish with a white eye in the circular diagram. Yang is the positive aspect of the universe, indicating the male, day, [and] warmth. It is represented as a white fish with a black eye. Neither can exist without the other. These two insepara-ble forces are, according to the Taoists, the principle of the universe. The complementary forces flow into one another. Night becomes day, summer becomes winter, hard becomes soft; the Yin becomes the Yang, continually pushing forwards and the Yang becomes Yin again. These two apparent opposites were not viewed as permanent and irreconcilable, but constantly changing in a ceaseless rhythmic cycle. Understanding this interchange of Yin and Yang is perhaps the most important single aspect in the learning of a Kung Fu system [and other Asian martial arts like TKD] [Lewis 1996:73-74].



**Figure 1.** The Yin and Yang Symbol
Source: U Turn Crossfit [http://uturncrossfit.com/?p=3365]

Zen Buddhism is a Chinese form of Buddhism which includes ideas from both the Confucian and Taoist philosophies. From Confucianism it included the emphasis on rituals and from Taoism it included rhythm, movement, or music. In Zen Buddhism, martial art practice is considered a form of meditation or a way of practicing the Zen (no-mindedness). This is done mainly using pattern/*kata* trainings. These dance-like, pre-arranged movements of combat enable the practitioner to practice his/her particular martial art and fight in combats without being conscious of his/her actions or without having aggressive feelings. This means that a person can meditate while he/she is practicing the pattern/*kata*. In other word, in this philosophy, it is believed that physical activity can free the mind and both the body and the mind of the practitioner can be developed simultaneously [Nosanchuk, MacNeil 1989; Skidmore n.d]. It is underlined that enlightenment is achieved using the body as an instrument [Cynarski *et al.* 2011]. The idea of mind-body or spiritual development via physical activity is best indicated in the Japanese concept of *Budo* which is translated as the *warrior's way*. And this philosophical orientation of the martial arts is especially evident in the traditional forms of martial arts whose names end with the suffix *do,* for example, TKD, *karate-do, judo, aikido*, etc [Mainland 2010].

**What is taekwondo?**

TKD is one of the most popular martial arts in the world whose origin and development are associated with Korea. TKD is also an Olympic sport. TKD is said to have been influenced by the Japanese martial art of Karate and the Chinese martial art of Kung Fu. TKD means the way/

art of kicking and punching. In TKD the ultimate aim is developing the TKD spirit and applying it to other aspects of one's life. The TKD spirit is developed via rigorous physical training that leads to physical, mental, and spiritual development. In TKD it is believed that practicing TKD requires a synchronization of physical movements with one's mind which should be peaceful. This idea of unity of body and mind is extended to the unity and harmony of life in a society that leads to lasting peace [Khan, Joshi 2011; Morris 1994; WTF n.d.; Park, Park, Gerrard 2009; Tausk 2001].

### Aspects of the training of taekwondo

TKD, like other martial arts, can be classified into two, i.e., traditional and modern/sport TKD. In both cases it can have different elements of training. The following are identified as major components of the training of TKD: TKD techniques, form (pattern/*kata)* practices, sparring (fight) trainings, self-defense exercises, breaking practices, philosophy and ethical principles, warming up and stretching exercises, physical fitness exercises, meditation and breathing exercises, and TKD competitions [Park, Park, Gerrard 2009; *cf*. Trulson 1986; Tausk 2001].

### Techniques of taekwondo

The techniques that are found in the arsenal of TKD can be classified into four major groups. These groups are: kicking, punching, blocking, and stances. The first two groups are designed to exert powerful strikes in different directions and from different distances. However, much emphasis is given to the kicking aspect of the strike. The third group of the techniques is blocking. Different techniques of blocking are meant to protect different parts of the body from different forms of strikes that come from various directions. Finally, the most fundamental group of TKD techniques is stance. Appropriate stance is crucial for both striking and blocking techniques. Both strikes and blocking are expected to be effective in terms of being swift and powerful. Especially, the proper use of the hip and the waist are fundamental for powerful techniques of striking and blocking [Park, Park, Gerrard 2009].

Compared with other martial arts, TKD is one of the martial arts that focus on striking [Tausk 2001]. However, it is distinguished from the other martial arts because of its heavy reliance on foot techniques or kicks. The rationale for this is that legs are more powerful and they can cover longer distance than any other part of the body. In addition, they help maintain a safer distance from the opponent [Park, Park, Gerrard 2009; Tausk 2001]. TKD is also unique for its fighting stance which is upright and mobile [Park, Park, Gerrard 2009].

### Pattern practices or forms (*hyung* or *poomse*, in Korean or *kata* in Japanese)

*Poomse* is a dance-like pre-arranged movement of combat in which the practitioner combines all his/her kick-

ing, punching, blocking, and other techniques to fight with imaginary enemy/enemies [Skidmore n.d]. It has already been discussed that pattern practices are highly emphasized in traditional schools of Asian martial arts. Park, Park, and Gerrard [2009] stated that TKD forms are central ways of learning the different techniques of the art by bringing together the different techniques of the art. In line with this, according to Friday [2001], forms are the fundamental pedagogical tools in traditional martial arts (including TKD) by which teachers teach and students learn and internalize their arts. Though they are not considered as central teaching methodology, forms are also present in modern martial arts to help assist free sparring which is their main teaching method.

Forms help practitioners to bring about coordination, balance, timing, breath control, rhythm, and focus. They are also important means of combining different techniques and mastering various sequences of combinations of techniques [Friday 2001; Park, Park, Gerrard 2009]. Generally forms are practiced in two ways. One way, which is evident in TKD (and other Chinese, Korean, and Okinawan martial arts), is to practice it individually, without a partner or as a fight with imagined opponent/s. The other way, which is evident in Japanese martial arts, is to practice it in pairs with a partner [Friday 2001]. In addition to being a teaching methodology, forms are also used in TKD as major assessment techniques to evaluate and promote a practitioner to the next rank [Park, Park, Gerrard 2009].

The use of forms as a teaching methodology is based on ideas from Confucian philosophy which underscores the importance of the right ritual ("stylized action" or "sequentially structured experience") to gain wisdom and understanding. The right ritual, in martial arts, means repeating the actions of the previous masters. This Confucian idea is also strengthened by the teaching of Zen-Buddhism – for effective learning to take place emphasis should be given to a student's own and immediate experience instead of being lectured by a teacher. In both philosophies, it is underlined that the teacher is not a lecturer but a model and a guide [Friday 2001]. In relation to this, another most important aspect of this methodology is its emphasis on the repetition of the rituals/forms. This is because repeated practice leads to the internalization of the techniques and it enables automatic response or application of techniques in different combat situations [Park, Park, Gerrard 2009].

### Sparring

Sparring or fight trainings are the major teaching methods in modern TKD and other modern martial arts [Friday 2001]. Sparring is also very helpful for practitioners to examine their skills in fighting. In spite of this, there has been a great concern with regard to its applicability. On the one hand, it is desirable to make the sparring as much similar as real-life fight, so that it

can be a more effective method of training for real-life encounters. On the other hand, making this training resemble a real-life fight will inevitably result in serious injuries and even death of the trainees. Some schools of martial arts allow such unrestricted sparring [Park, Park, Gerrard 2009].

However, other schools, to deal with this problem, came up with two major approaches. One approach is called focus/non-contact sparring. In this approach of sparring, fight trainings and scoring in fight competitions are done without actually hitting the partner/opponent, but by pointing the strike one inch away from the target. Though this approach avoids harm to participants, it is criticized as an ineffective method of training for real-life fight. The second approach, which is followed by TKD, takes a middle ground. Here, sparing is done with contact but the contact is restricted in two major ways. In TKD sparring, players are expected to wear different body protectors including: headgear, mouth protector, chest protector, and forearm and shin pads. In addition, strikes are allowed only to the upper part of the front body. This kind of sparring could be the best way of sparring since it prevents serious injuries while allowing for real-life-like fight [Park, Park, Gerrard 2009].

## Self-defense

Self-defense trainings are drills that are designed to prepare students for specific type of reactions in specific type of real-life or street attacks. According to Park, Park, and Gerrard [2009], the concept of self-defense in TKD is beyond learning or having various techniques of dealing with various attacks, but it is mainly a matter of having the TKD spirit. In addition, they believe that anything taught in TKD enables students to defend themselves and to develop their TKD spirit.

The student of Tae Kwon Do gradually develops a sense of inner harmony and discipline that prevents panicking in a dangerous situation. This inner peace comes from the understanding that he is not helpless. His training in Tae Kwon Do has shown him over the years that he is capable of feats of agility and skill that he wouldn't have thought himself capable of before his training. He has learned himself and learned his limits. This spirit should help him to avoid a confrontation. By not allowing the bully to intimidate him, the student is able to avoid a violent confrontation. This is the heart of the teachings of Tae Kwon Do [Park, Park, Gerrard 2009: 159].

Park, Park, and Gerrard [2009], underline that there are some situations in which a student cannot avoid confrontation because the attacker insists on attacking. In this case, students are advised to avoid the situation/attacker (e.g., by running away, giving away their money, etc). And, if this does not work, as a last resort, students apply their TKD skills in order not to be harmed by the aggressor/s.

## Breaking

Breaking is one aspect of TKD practice in which practitioners use their body (particularly hands and feet) to break wood and brick [Park, Park, Gerrard 2009]. Advanced level practitioners also break concretes [Tausk 2001].Compared to other aspects of TKD training, breaking is less emphasized in day-to-day trainings. But, it is a major ingredient in the case of demonstrations (public exhibitions) and promotional tests. In these two cases, breaking helps to show the student's ability to focus his/her physical and mental powers at a particular spot. In breaking, it is also noted that what enables the practitioners to do those unbelievable breakings without being injured is not merely physical strength, but the ability to focus and have a unity of body and mind [Park, Park, Gerrard 2009]. A student of TKD is expected to be able to break a board using all the techniques of his/her level. In addition, as a student advance in the rank of TKD, he/she should be able to perform breakings with advanced techniques [Tausk 2001].

## The philosophy and ethics of taekwondo

It has already been discussed that TKD, like other major oriental martial arts, has been influenced by major religions/philosophies of Asia, such as Taoism, Buddhism/Zen Buddhism, and Confucianism. According to Park, Park, and Gerrard [2009], TKD is beyond a mere training of combat techniques, but rather a life-style which is based on the development of the TKD spirit and its application in everyday life. This essence of TKD is also indicated by the name of the art itself. The word *do,* which is at the end of the name, means "way" in Korean and it connotes that the art is a way of life.

The underlying philosophical emphasis of TKD is not different from the other martial arts. According to Park, Park, and Gerrard [2009], at the heart of the TKD spirit is a belief that there is constant interaction between nature and oneself and this interaction must be harmonious for peaceful existence. This also shows that this philosophy assumes the unity of things in the universe. As a result, the major goal in TKD is to control the ego (discriminating mind, as Zen Buddhists call it). In addition the following point is emphasized.

At the core of this philosophy is the concept of 'duality' in nature. Duality refers to the interaction of opposing forces. Harmony is achieved when opposite forces are distributed equally, resulting in balance. When one force dominates however, discord is the result. For example, when an adversary uses positive (aggressive) energy, or in other words initiates an attack, the defender should use negative (yielding) energy to respond, by stepping aside to allow the energy of that attack to flow past harmlessly. In this manner, what was once hard (the assailant's attack) becomes soft (non injurious), and what was soft (the defender's passivity) becomes hard (an effective way to counter a potentially dangerous assault), allow-

ing balance to return [Park, Park, Gerrard 2009: 175].

In TKD, it is believed that the ultimate benefit of the TKD spirit and its assumption is that it makes the practitioner capable of leading peaceful life by living in the "now" and by harmonizing one's action with nature [Park, Park, Gerrard 2009].

The TKD spirit is also evident in TKD's modern-day ethical principles that are derivative of the five ethical codes of the ancient military class of Korea, the *Hawrangs*. These five principles are: be loyal to your country; be obedient to your parents; be trustworthy to your friends; never retreat in battle; and never make an unjust killing. There are 11 ethical principles of the current TKD and they are supposed to shape the moral development of practitioners. These ethical principles include: loyalty to your country; respect for your parents; faithfulness to your spouse; respect for your brothers and sisters; loyalty to your friends; respect for your elders; respect for your teachers; never take life unjustly; indomitable spirit; loyalty to your school; and finish what you begin. These eleven commandments may be summarized by what is known as the central tenets of TKD: loyalty, respect, courtesy, perseverance, and justice [Park, Park, Gerrard 2009].

**Competitions in taekwondo**

There are two major types of competitions in TKD, i.e., pattern/form (*hyung* or *poomse,* in Korean*)* competition and fight (*Kyorugi,* in Korean) competition. In form competition, points are awarded by judges based on the quality of one's performance – stances, strikes, blockings, focus, etc. Nevertheless, form competition is not usually emphasized in the world of TKD. On the contrary, fight competitions are dominant [Tausk 2001]. Fight competitions are always staged at international, continental, regional, national, and local levels [Park, Park, Gerrard 2009; Tausk 2001]. In addition, such competitions are included in different sporting events, for example, Pan American Games, Asian Games, African Games, Central American and Caribbean Games, Bolivarian Games, Southeast Asian Games, South American Games, South Pacific Games, and Olympic Games [Park, Park, Gerrard 2009].

Sparring competitions are held by matching competitors on the criteria of gender, age, belt level, and weight category [WTF 2007, cited in: Chiodo *et al.* 2009]. The age category includes children as young as 6 years old and there are two major divisions, i.e., senior divisions (age 18 and above) and junior divisions (black belt: ages 14-17, color belts: ages 16-17, color belts: ages 14-15, black belt and color belts: ages 12-3; black belts and color belts: ages 10-11, black belt and color belts: ages 8-9, and black belt and color belts: ages 6-7). Weight categories differ based on age and gender of the athletes; the weight requirements for children and female competitors are lower compared to the males' [Park, Park, Gerrard 2009].

Though there are different TKD organizations and rules of fight competition, many similarities are exhibited among them [Tausk 2001]. For example, in almost all cases athletes must wear protective pads which include headgear (protecting the head not the face); chest protector (protecting sternum, stomach, solar plexus, and ribs); groin protector; mouth protector; and forearm and shin pads [Park, Park, Gerrard 2009; Tausk 2001]. Another similarity is that in TKD competition all strikes should be targeted at and above the waist. Both foot and hand techniques are available, but kicks are emphasized. An athlete can execute any kind of kicks as long as it is targeted above the opponent's waist. Kicks that are targeted at the head and that include jumping are also valued. Hand techniques, however, are only limited to punching to the chest. In both cases, a player's strikes are evaluated based on the impact they made on the opponent [Chiodo *et al.* 2009; Park, Park, Gerrard 2009; Tausk 2001].

Duration of fight competitions may vary. But for Olympic-style competition, it takes three rounds, each round having three minutes and a one-minute break. The duration of competition could be reduced to two minutes of three rounds while having a one-minute break between the rounds [WTF, n.d.]. It is also observed that in TKD competitions, an athlete might fight in more than one game in a day, if he/she continues winning each subsequent fight (for qualifying, for semi-final, and for final matches) [Chiodo *et al.* 2009; Kazemi *et al.* 2011].

**Adolescence**

**Defining adolescence**

Authors in the field of adolescence study commonly agree that defining adolescence is a difficult task and there is not one agreed-upon definition for it [APA 2002; Moshman 2005; UNICEF 2011]. One reason for this could be the possibility by which the term can be understood in terms of its different aspects, such as based on chronological development (age-wise), physical development, cognitive development, social development, etc. [APA 2002]. Another reason could be that different individuals experience it differently, for example, the inconsistent onset of puberty within and between the sexes. Third, different countries have different laws specifying, for example, who are considered adults and who are considered children. Finally, in spite of the presence of laws protecting children and adolescents from adult roles, many children are engaged in adult roles, including labor, marriage, primary caregiving and conflict [UNICEF 2011].

Nevertheless, chronological definition could be the easiest way to define adolescence [Moshman 2005]. In this case, different authors and organizations propose different age ranges. For example, APA [2002] provides the age range of 10-18. IWbG [2013] proposes the age range of adolescents to be 12-18. The UN provides the

age range of 10-19 [UNICEF 2011]. Similarly, the Society for Research on Adolescence uses the age range of 10-19. Journal of Adolescent Research also specifies its own age range as 11-22. In spite of these different age ranges, we can still see commonalities in their definitions – adolescence is a stage of development which lies between but different from childhood and adulthood. Yet, distinguishing adolescents from adults might be more difficult than distinguishing them from children [Moshman 2005]. In this current paper the age range for adolescents is considered to be 10-22 years, covering all the above chronological definitions.

**Views toward Adolescents**
In the world, there are some 1.2 billion adolescents [UNICEF 2011, cited in MoFED & UNICEF in Ethiopia 2012]. And, 88% of them live in developing countries [UNICEF 2011]. Adolescents have been viewed both negatively (the deficit model) and positively.

Up until the mid of the 20th century, adolescents had largely been viewed in negative terms, as people characterized by storm and stress, wildness, irresponsibility, gang violence, alcohol-related accidents, school shooting, drug abuse, suicide risks, etc. These negative images had been held not only by ordinary people and the media, but also by professionals, scientists, and researchers [APA 2002; Lerner *et al.* 2006; Lerner *et al.* n.d.; Salkind 2002; Susman, Rogol 2004].

Among scientists and professionals, the negative view toward adolescents began with the work of the father of the study of adolescence, Granville Stanley Hall (1844 –1924), whose 1904's book discussed the issue of adolescence in relation to psychology, physiology, anthropology, sociology, sex, crime, religion, and education [Lerner *et al.* 2006]. In general, for Hall [1904], adolescence is a transitional stage of development that is best illustrated by human evolution. Adolescence is like that stage of evolution in which humans were evolving from being wild to being civilized. Therefore, this period is a period of "storm and stress" by which individuals attempt to abandon their wild nature and become civilized. According to Lerner *et al.* [2006] and Lerner *et al.* [n.d.], Hall's legacy continued to influence other scientists and psychologists like Anna Freud who argued that adolescence is a universal stage of emotional and social developmental disturbance and Erik Erikson who claimed that this stage is a stage of identity crisis. Based on this, other scientists and professionals continued to define adolescents as being at-risk people and tried to fix them.

The deficit view toward adolescents has recently been changed; the view toward adolescents has become mostly positive. Researches have showed that the negative things attributed to adolescents are not always biological and universal. Now, adolescence is seen as a stage of development in which biological, cognitive, emotional, and social changes occur and in which adolescents

attempt to adjust themselves to these changes as per the societal expectations. However, though it is not universal, it is still believed that adolescents are more susceptible to particular problems [Susman, Rogol 2004]. Nevertheless, it is found that a large number of adolescents exhibit more of positive experiences such as success in school, good social relations, and adherence to social values instead of maladjustment and bad behaviors/habits like violence and drug abuse [APA 2002; Lerner *et al.* 2006; Susman, Rogol 2004; UNICEF 2011]. Therefore, it is believed that if adolescents get proper guidance and support from professionals and other adults, they can exhibit more positive outcomes [APA 2002].

**The development of adolescents and associated challenges**
In human development or life cycle, there are stages where major changes occur. Next to infancy, adolescence is, perhaps, a stage of human development in which the most significant changes occur. The changes that occur during adolescence are multidimensional and interrelated. These changes can generally be classified as physical/biological, cognitive, emotional, social, and behavioral changes. The occurrence of all these changes, almost at the same time, requires adolescents to make adaptive adjustment/coping. While successful adjustment leads to well-being and better adult life, maladjustment does the opposite [Archer 2005; APA 2002; Moshman 2005; Salkind 2002; UNICEF 2011].

**Biological/physical changes**
Biological/physical changes that occur during adolescents are multifaceted and interrelated. The beginning of all changes in adolescence might be linked to the onset of puberty. There is no exact time for the beginning of puberty; it has varied among individuals across time and societies and gender. It may also vary within the same place and historical time and gender. Some of the reasons for this variation may include: genetic and biological influences, stressful life events, socioeconomic status, nutrition and diet, amount of body fat, and the presence of a chronic illness. Generally speaking, people enter puberty at the age of 10 -2 (in girls) and 12-14 (in boys) [APA 2002]. Puberty is a result of hormonal changes that occur in people during this age. The hormonal changes lead to the development of primary and secondary sexual characteristics, increased sexual drive, and capacity to fertility [Salkind 2002]. Primary sexual characteristics include, for example, growing breasts and menstruation (for girls), enlargement of the testes and ejaculating (for boys) and the development of sex organs (in general). Secondary sexual characteristics also includes, growing body hair at different parts of the body and changes in voice, among others [APA 2002].

The hormonal changes and their byproduct biological/physical developments are associated with further

changes in adolescence. According to [Salkind 2002], a change in hormones is sometimes associated with aggression, mood swings, and sexuality. APA [2002], also identifies the following as accompanying the hormonal and biological changes: concerns about body image or physical appearance; weight gain coupled with lack of physical activity leading to obesity; and eating disorders (anorexia and bulimia nervosa). These three body image-related concerns of adolescents are intertwined and usually evident among girls in developed countries where being slim is valued.

**Change in cognition.** During adolescence, cognitive capacity is greatly improved. Cognitive changes are related to reasoning, problem solving, abstract thinking and reflecting, planning for future, and moral development. For example, adolescents are able to think in both hypothetical and real settings. They can also address different dimensions of a situations and cause and effects. Adolescents' ability to learn is expanded; they can attend to multiple topics and subject areas. They can apply lessons learned from one area into others. In the case of reflection, adolescents can be aware of their strengths and weaknesses. Because of these changes, adolescence is a time when self-concept and personal and social identity are developed. In addition, planning for the future and desire to understand others are commonplace. Moral development is also evident at this stage. Moral development may include sense of values and ethical behavior, for example, moral reasoning, honesty, and pro-social behaviors [APA 2002; Salkind 2002]. According to APA [2002], it is important to note that adolescents are not yet perfect in their cognitive capacities. And, therefore, adolescents need the guidance and help of adults. In addition, not all adolescents have the same capacity and pace of growth in their cognition.

**Emotional development.** Emotional development is about having a normal sense of identity and the ability to deal with stress and emotions. Identity formation may not begin and end at adolescence, but people, for the first time, begin to contemplate about it at this stage. The concept of identity covers two things, i.e., self-concept (beliefs about oneself in relation to one's attributes, roles, goals, interests, values, and beliefs) and self-esteem (evaluating feelings about one's self-concept, it could be global self-esteem/overall evaluation or specific self-esteem/about a particular aspect). Identity is also about the possible-self, i.e., what and who one will become in the future. The identity of an adolescent can be influenced by different factors such as cognitive capacity, physical changes, and other people's comments [APA 2002]. According to Erikson [1959], cited in Lerner *et al.* [2006], adolescence is a stage of identity crisis.

Adolescents are also expected to have some emotional intelligence/skills that could help them cope with stresses and manage their emotions in addition to making them have good relations with other people. Self-awareness and relationship skills are the two ingredients of emotional intelligence [APA 2002]. Yet, according to Freud [1969], cited in Lerner *et al.* [2006], adolescence is a time of emotional disturbance.

**Social changes.** These changes could be understood in terms of peer and family relationship, school transition, dating and sexual behavior, work, and community [APA 2002; Salkind 2002].

During adolescence peer relations become more important for adolescents. Activities of adolescents become more peer focused (like sports and extracurricular activities) and are more important even than academic activities and activities with family members. Especially, during early adolescence, individual self-esteem is largely based on peer acceptance and confidence in physical appearance [Salkind 2002]. One possible reason for adolescents to be peer focused is their desire for more independence from their families. This shift of focus is normal and parents and professionals should encourage positive peer relations among adolescents because peer groups have their functions. Peer groups could be a reference point for one's identity formation; could make adolescents develop values and moral judgment; could be a source of information; could be sources of popularity, status, prestige, etc; and could be reinforcers of behavior [APA 2002].

During adolescence, the relationship between adolescents and their families changes. The interaction becomes less frequent. Adolescents' desire for more independence and freedom increases, as a result of their physical change. And, this might lead to conflict between adolescents and their family since adolescents question family rules and roles [Salkind 2002]. Though there is less frequent interaction with families, family is still a significant part of adolescents' lives, as it protects them from bad behaviors and habits. Good parenting style is therefore essential for successful development of adolescents [APA 2002].

Dating and sexual behavior is another aspect of the social development in adolescence. Dating may begin at 14 or 16 years. These days it may be done via the internet. Dating at this stage is more of short-term (for few months) and when it becomes longer the demand for sex could increase. Sexual activity at this stage could expose adolescents to sexually transmitted diseases like HIV/AIDS [APA 2002].

School transition is also another important aspect of adolescents' development. Schools are important places in the lives of adolescents since they enable adolescents to make friends, have attachments/bonding and improve their cognitive capacities in addition to providing a sense of safety [APA 2002]. During adolescence, individuals move from one school level to another, usually to differ-

ent levels of high school. School transition might have negative effects on adolescents' functioning, for instance, on academic performance and psychological well-being [APA 2002; Salkind 2002]. However, many of the adolescents could successfully cope and adjust themselves to it [APA 2002].

Adolescents are also engaged in some sort of work. Adolescents might have part time jobs, side by side with their education. Working can have both positive and negative impact on adolescents' well-being depending on mainly the amount of hours adolescents work. If the time of work is fair (< 20 hours/week), adolescents could get benefit from working, such as learning how the businesses world work, having a sense of accomplishment, etc. On the contrary, too many hours of work (> 20 hours/week) could result in negative outcomes for adolescents such as work related injuries, problems in education, insufficient sleep, substance abuse, etc [APA 2002].

Another aspect of adolescents' social development is seen in the case of community. The concept of community, in this case could include: socioeconomic characteristics of a neighborhood, availability of resource and services, faith institutions, the media, and people living in the neighborhood. All of these can have both positive and negative effects on adolescents' development. For example, good socioeconomic status and sociability of a neighborhood are supposed to have positive effects and vice versa. Faith institutions can provide adolescents with meaning, positive role models, moral teachings etc. The media (music, TV, the internet, etc) could be positive or negative influences on adolescents depending on their content. They may teach adolescents important lessons or expose them to aggression, violence, sexual harassment, pornography, etc [APA 2002].

Salkind [2002] underscores the importance of understanding the changes and challenges of adolescence in different cultural contexts and how a particular challenge could be translated into a specific task. For instance, in the case of adolescent-parent relationship, appropriate/normal adolescent development takes different forms in individualistic and collectivist societies. In individualistic societies what is valued during transition to adulthood is a tendency toward more independence from parents and more decision making power. On the contrary, in collectivist cultures, what is valued are more family responsibilities and greater participation in community decision making activities.

**Behavioral change.** Behavioral change, which is the result of the combined effect of physical, cognitive, emotional, and social changes, is the final aspect of adolescent development. During adolescence, it is normal to see experimenting and risks-taking behavioral tendencies among individuals. This situation can lead to both positive and negative outcomes among adolescents, depending on how it is handled by adolescents, parents,

the community, and professionals. Realistic experimenting or risk taking helps adolescents to develop their identity, decision making skills, and assessment and reflections on situations [APA 2002].

Nevertheless, adolescents usually make unrealistic experimenting/risk taking behaviors that endanger their well-being And as a result, the rate of risk-taking behavior is high among adolescents. Such risk-taking behaviors may involve cigarette smoking, alcohol use, use of other drugs (marijuana, cocaine, methamphetamine, and steroids), weapon carrying, fighting, sexual violence, sexual intercourse, pregnancy, unsafe abortion, school failure and dropping out, and failure to use motorcycle or bicycle helmets [APA 2002; Compas 2004; UNICEF 2011]. In relation to this, during adolescence, the rate of psychiatric/mental health problems (like depression, conduct disorder, eating disorders, suicidal tendencies, etc) is increasingly high [Compas 2004; UNICEF 2011].

There are different explanations for why adolescents engage in such behaviors. Adolescents may do so for fun and excitement, for peer acceptance and status, by modeling and romanticizing (to identify with) adult behaviors, and for a variety of other reasons [APA 2002] including socio-economic influences [UNICEF 2011].

Given risk-taking behavior is natural among adolescents, adults and professionals can help adolescents avoid dangerous risk-taking behaviors and cultivate realistic experimentation. This can be done by assisting adolescents in their decision making and by encouraging them to participate in challenging but less dangerous activities (like sport, dance, theater, carpentry, hiking, part-time jobs, music, etc) that fulfill their risk-taking urge [APA 2002].

**The well-being of adolescents**

Simply defined, well-being could mean good life or quality life [Camfield *et al*. 2008]. The well-being of adolescents has different dimensions. These different dimensions are intertwined and influence one another. These dimensions could involve adolescents' feelings, relationships, physical health, living environments, etc [Camfield *et al*. 2008; Skattebol *et al*. 2013]. Woodhead [2004] cited in Camfield *et al*. [2008], also listed five basic dimensions of children's well-being: cognitive abilities and cultural competencies (e.g. intelligence, communication skills, and technical skills); personal security, social integration and social competence (e.g. secure attachments, positive adult/peer relations, social confidence, sense of belonging); personal identity and valuation (e.g. self-concept, self-esteem, feeling valued and respected); sense of personal agency (e.g. self-efficacy, internal locus of control, positive outlook); emotional and somatic expressions of well-being (e.g. stress levels; sleeping and eating patterns, general health).

The different dimensions of adolescents' well-being are also recognized by the UNCRC. Some of them include: mental, spiritual, moral, and social development; the right to health; the right to play and recreation; standard of living; protection from labor exploitation; etc [UNCRC n.d.]. Similarly, Cummins and Lau [2005] identified dimensions of adolescent well-being that include standard of living, health, achieving in life, relationships, safety, community-connectedness, future security, and school.

## Adolescents' participation in the martial arts and benefits of participating

Martial arts are popular among adolescents [Vertonghen, Theeboom 2010]. As a result many studies have been conducted to examine the role of martial arts training on the well-being of adolescents. Most of such studies showed the positive role of the martial arts [Binder 2007; Vertonghen, Theeboom 2010]. There is also some strong anecdotal evidence testifying that the training of martial arts has positive impact on adolescents. The positive role of martial arts could be generally categorized as physical and psychosocial [Tadesse 2015].

## Physical benefits

It is crystal clear that physical activity is an invaluable means of securing health and wellness for human beings. As a result of lack of physical activity/exercise, two million people lose their lives a year, in the world [WHO 2006, cited in: Chowdhury 2012]. Lack of physical activity/exercises is responsible for many major health problems such as heart disease, cancer, diabetes, and depression [Armstrong *et al.* 2000, cited in: Chowdhury 2012]. Statistically speaking, it is estimated that lack of physical activity is responsible for 30% of the global ischaemic heart disease, 27% of diabetes, and 21% – 25% of breast and colon cancer [WHO 2009, cited in Chowdhury 2012]. From previous discussions, it can be understood that training of martial arts/TKD is based on physical activities/exercise like stretching, aerobics, acrobatics, physical fitness, punching and kicking techniques, dance-like movements called *poomse*, etc. Therefore, it can be argued that participation in TKD or any martial art is essential for the physical health of adolescent practitioners.

The effect of martial arts/TKD on the physical aspect of adolescents' well-being is also studied by researchers. For example, Khan and Joshi [2011] studied the effect of TKD on adolescent boys' flexibility, explosive power and strength. They found that six weeks of training in TKD resulted in a significant improvement in the boys' flexibility, explosive power, and strength. Similarly, a study by Sekulic *et al.* [2006] found that nine month of Judo training for boys was more effective for fitness development (especially with regard to agility and muscular endurance) than recreational sports, i.e., games training.

Another study by Fong, Tsang, and Ng [2011] examined the role of TKD training on sensory organization and standing balance of children with developmental coordination disorder. Findings showed that TKD training improves sensory organization and balance of children with such problems. The authors also suggested that therapists could include TKD in their therapies to help such children.

In another similar study, Fong, Fu, and Ng [2011] investigated the effect of TKD training on adolescents' development of balance and sensory system. Results showed that training in TKD can improve adolescents' development of postural control and vestibular function. The authors also recommended that clinicians use TKD training to help adolescents with problems related to balance or vestibular dysfunctions.

Tadesse [2016] also studied TKD adolescents' and coaches' perception of the benefits of TKD for adolescents. The following were identified as physical benefits of practicing TKD: physical fitness (vitality, speed, strength, muscle and endurance), good physical appearance, and disease prevention and improved overall health.

Draxler, Ostermann, and Honekamp [2010] studied whether martial arts practitioners have better health-related quality of life than the general public in German. Findings showed that martial artists had a better health-related quality of life than the general public and especially the physical aspects of their health were rated better than that of the psychological ones.

## Psychosocial benefits

The psychosocial benefits of martial arts are also studied by researchers. A review of studies by Binder [2007] underlined two major points regarding the role of martial arts on practitioners' psychosocial well-being. On the one hand, there is a positive relation between practicing martial arts and practitioners' independence, self-confidence, self-reliance, self-control, self-esteem, and easy-going and warm-hearted personality. On the other hand, a negative association was noted between practicing martial arts and anxiety, aggression, hostility, neuroticism, and feeling of vulnerability to attack.

In relation to aggression, Steyn and Roux [2009] conducted a study to determine whether participation in TKD lowers aggression and increases psychological well-being of adolescents. Findings showed that (1) TKD adolescents' scores on verbal aggression and hostility measures were significantly lower than the other groups and (2) TKD adolescents' scores on personal growth and self-acceptance were significantly higher

than the rest. Also, Daniels and Thornton [1992], in their study regarding hostility, length of training and martial arts, found inverse relation between increased training in martial arts and feelings of assaultive and verbal hostility.

In the case of self-regulation, Lakes and Hoyt [2004] studied TKD with the aim of determining the impact of school-based TKD training on children's self-regulatory ability. The result of the experiment is that children in the TKD group showed greater improvements in cognitive self-regulation, affective self-regulation, pro-social behavior, classroom conduct, and performance on a mental math test.

Regarding personality, Kurian, Verdi, Caterino, and Kulhavy [1994] studied TKD students to determine whether there is a relationship between training in martial arts and personality factor. Findings showed significant positive relationship between belt ranking and self-reliance and enthusiastic optimism.

In relation to risk behavior and overall well-being, Goldsmith [2013] studied adolescents in traditional martial arts. The finding showed that the participation of martial artists in risk behavior was significantly lower than that of the samples of the national data.

In another study, Movahedi, Bahrami, Marandi, and Abedi [2013] studied the effect of pattern practice on the social interaction of children with autism spectrum disorder (ASD). Their experiment found that pattern practice significantly improved social dysfunction in the martial art group.

Zivin *et al.* [2001] investigated the role of school-based traditional martial arts training on the behavior of juveniles at high risk for violence and delinquency. The authors concluded that school-based traditional martial arts training can be instrumental in preventing and reducing adolescents' violent behavior and delinquency.

In the case of subjective well-being (SWB), Tadesse [2015] examined the role of TKD training on adolescents' SWB. Results showed that TKD adolescents had a significantly higher level of SWB compared to non-TKD adolescents.

Another study by Tadesse [2016] also reported the perception of TKD adolescents and coaches regarding the psychosocial benefits of TKD for adolescents. The benefits identified include social benefits (more friends and pro-social behaviors like respecting people, sociability, discipline, obedience, patience, good attitude toward others); mental benefits (self-confidence and courage, mental satisfaction and happiness, improved thinking and reasoning, sense of freedom, and self-awareness); self-defense; addiction avoidance; and other benefits (improvement in education, new skills, and opportunity to teach others).

Similarly, Bartík [2014] assessed the perception of boys and girls regarding the benefits of learning combative skills for primary school children. Accordingly,

mental health and development of social skills were identified among other benefits.

A clinical project, that implemented an educational program which joined Tai Chi and mindfulness-based stress reduction (MBSR) trainings, also reported that training in Tai Chi and mindfulness was beneficial for boys and girls in terms of promoting well-being, calmness, relaxation, improved sleep, less reactivity, increased self-care, self-awareness, and a sense of interconnection/interdependence with nature [Wall 2005].

There is also some anecdotal evidence that reported positive influence of martial arts training on well-being of adolescents. For example, Lee-Barron [2012], who has tremendous experience in martial arts and education/training of children and young people, underscores the importance of regular martial arts training for children with Emotional and Behavioral Difficulties. He noted that martial arts training could strongly improve children's health, fitness, self-esteem, inner discipline, social abilities, and academic performance.

## Theoretical framework

There are a number of theories of well-being These theories could be classified as economic theory, eudaimonic theories, set-point theories, multiply discrepancy theory, the top-down and bottom-up factors, orientation to happiness model, the mental health continuum, liking (hedonic) theory, and needing theories [Durayappah 2010; Easterlin 2003; Olsson 2012]. However, only the needing theories of well-being are emphasized here as they are more pertinent to the purpose of this paper.

According to the needing theories of well-being, there are universal and fundamental needs that should be fulfilled for all human beings including adolescents. Fulfillment of such needs brings about and enhances well-being while failure to do so results in decreased well-being or ill-being [Durayappah 2010]. Example of such theorization can be found in choice theory of psychology (Glasser's choice theory) and Maslow's [1943] theory of human motivation or hierarchy of needs.

According to choice theory in psychology, human behavior is driven by a desire to meet five genetically-based fundamental needs. These fundamental needs are: survival, love and belonging, power, freedom, and fun. The need for survival is the most basic one that has physical manifestations like the need for food, shelter, safety and security. The need for love and belonging is the most powerful one expressed in terms of people's need to feel loved and wanted and to have closeness and connectedness with others. The need for power is about competence, personal growth, and working with others harmoniously. The need for freedom is associated with the issue of autonomy, having choices, and making own decisions. The need for fun is related to learning,

entertainment, enjoyment, etc [Sliwinski n.d.; William Glasser Institute n.d.]

This theory also asserts that human behavior consists of four interrelated components, i.e., thinking, acting, feeling, and physiology. While humans can have great control over the thinking and acting aspect, they have much less control over their feeling and physiology. However, humans can still control their feeling and physiology indirectly by working on their thinking and action. [Sliwinski n.d.; William Glasser Institute n.d.].

Another similar theory is Maslow's [1943] theory of human motivation or hierarchy of needs. According to this theory there are five basic and hierarchical needs/goals of human beings. These five basic needs, from bottom to top, are: physiological (biological and physical needs like need for food); safety (from threat or danger); love (affection and belongingness); esteem (self-respect based on self-evaluation regarding one's achievement, strength, independence, autonomy, etc and one's reputation, prestige, etc); and self-actualization (to know and to be oneself as well as to use one's potential to the fullest, for ultimate happiness). Maslow [1943] also asserts that human behavior is motivated by a desire to achieve these goals one after another; without achieving the initial needs one cannot move to the higher level needs. Huma is, therefore, unlimited. Anything that hinders the achievement of these basic needs or inability to achieve this goals results in psychopathology.

From the above discussions regarding the two theories, it can be understood that these two theories have, at least, four basic similarities. And, these similarities lay the foundation for this paper's conceptual framework. First, both theories underscore that human behavior is driven by a desire to fulfill genetically-based fundamental needs. Second, the theories also underline that these needs are not only biological/physiological, but also psychological and social. Third, the theories emphasize that failure to fulfill the fundamental needs of human beings results in psychopathology or ill-being. Finally, it appears that both theories have optimistic approach toward the nature of human being – while choice theory stresses humans' ability to make choice and improve their well-being, Maslow's theory asserts that humans by their nature strive for growth and improvement.
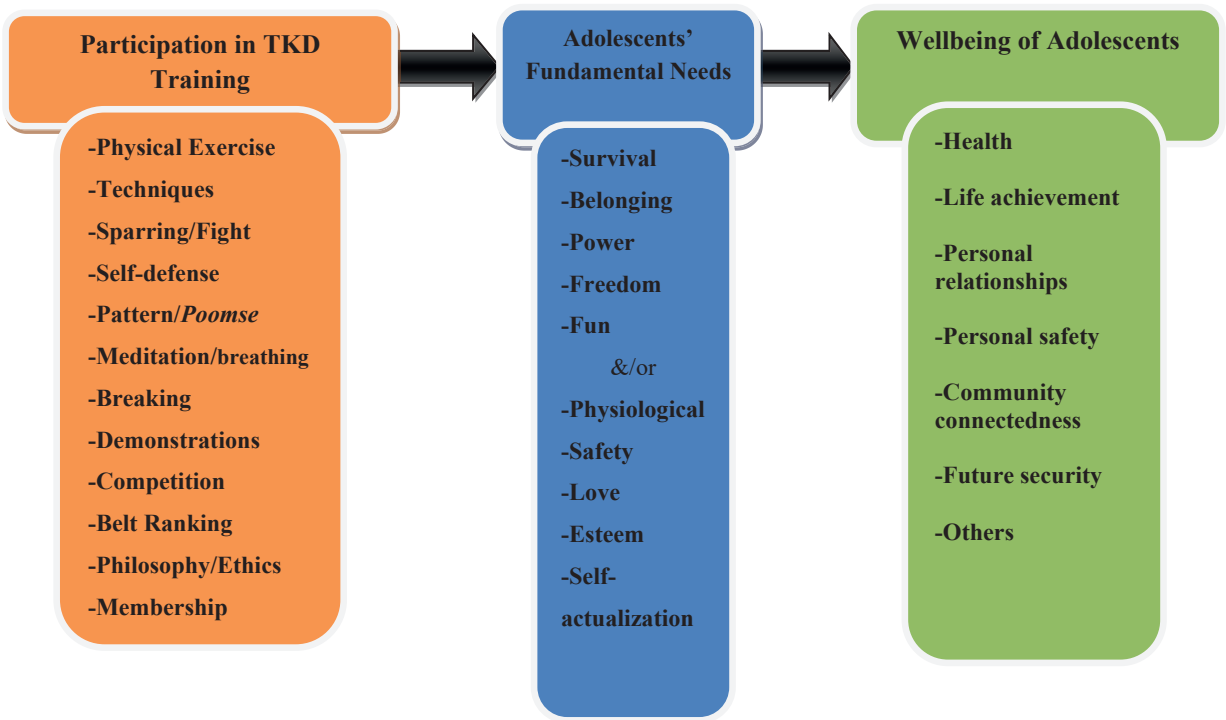
## Conceptual framework

Based on the ideas of the above-discussed two similar theories (i.e., choice theory and Maslow's theory) and based on the literature review about the nature of TKD training and adolescents' well-being, the following conceptual framework is developed. In this conceptual framework it is shown that the different components of the training of TKD help adolescents meet their differ-

ent fundamental needs and this in turn helps to improve adolescents' well-being

From the discussion regarding the aspects of TKD training, it can be learned that the environment of TKD incorporates the following elements: club, association, and community (e.g. WTF) membership; physical exercises (stretching, aerobics, acrobatics, physical fitness, etc); techniques of TKD (kicks, punches, blocking, and stances); pattern practices; fight/sparring trainings and competitions (local and international, including Olympic); self-defense trainings; philosophy and ethics; meditation and breathing; belt ranking; breaking practices; demonstration ceremonies; and a teaching methodology that emphasizes practice and students' experience. The various aspects of the TKD training help to bring about and enhance the well-being of adolescents by enabling them to meet their different fundamental needs as identified by the two theories.

The five fundamental needs of choice theory can be met by the TKD environment as follows. The survival needs of adolescents can be addressed by the different aspects of TKD including physical exercises (stretching, aerobics, acrobatics, physical fitness, etc), techniques of TKD (kicks, punches, blocking, and stances), pattern practice, sparring trainings and competitions, and self-defense trainings. All these components of the training of TKD enable adolescents to be healthy, strong, and skillful in defending themselves. The belonging need can be fulfilled by club, association, and community memberships and by friendship among club members. The need for power and freedom could be met by the belt ranking system which indicates the adolescents' mastery of and competence in different aspects of TKD including techniques, forms, competitions, self-defense, etc. Adolescents' need for fun can be met by TKD which provides playful environment and which teaches different exotic techniques and movements in a small group setting where peer learning is available.

The TKD environment could also enable adolescents to meet Maslow's five basic and hierarchical needs. Physiological/biological/physical needs of adolescents could be addressed by mainly two aspects of the training, i.e., physical exercises (stretching, aerobics, acrobatics, physical fitness, etc) and meditation/breathing practices. TKD can help meet the safety need of adolescents by its ability to teach students self-defense and fighting skills in addition to calmness and internal peace. The need for love/belonging is fulfilled as the training provides an opportunities for club, association (e.g. WTF), and community memberships and friendship among club members. Esteem need is addressed since the training could (1) enable adolescents to be strong, competent, and independent, and (2) open the door for fame and attention from others. Physical exercise, self-defense, competition (national and international), demonstration ceremonies, belt rankings and the like are responsible

**Figure 2.** The Relationship between Participation in Taekwondo Training and the Well-being of Adolescent Practitioners

for this. Finally, the need for self actualization could be addressed by TKD training since self actualization is the ultimate goal in traditional martial arts. TKD training could be an ideal environment for adolescents to know their strengths and weaknesses; know and become their true selves; and to use their potential to the fullest.

## Conclusions

In this paper attempts were made to show how participation in martial arts could positively contribute to the well-being of adolescents. The paper provided discussions regarding the nature of martial arts, the nature of adolescents and their well-being, research findings about adolescents' participation in martial arts, as well as theoretical and conceptual explanations. The paper emphasized TKD and the need-based theories of well-being to make its point.

The paper underscored that martial arts are beyond mere trainings for combat. Martial arts could be means for personal and interpersonal development. Different dimensions of the martial arts (i.e., physical, psychological, social and spiritual) could help adolescents meet their fundamental needs and thereby achieve a state of well-being. This is especially true given adolescence is a crucial stage of human development that is characterized by multidimensional changes which require proper adaptation.

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## Młodzież a sztuki walki: zastosowanie teorii wyjaśniających pozytywne efekty wpływu azjatyckich sztuk walki na dobre samopoczucie młodzieży

**Słowa kluczowe:** młodzież, sporty walki, sztuki walki, teoria potrzeb, *taekwondo*, dobre samopoczucie

### Abstrakt

Problem. Głównym celem niniejszej pracy było wyjaśnienie, za pomocą teorii, jak ćwiczenie sztuk walki może przyczynić się do zwiększenia dobrego samopoczucia młodzieży.

Metoda. W artykule dokonano przeglądu literatury dotyczącej sztuk walki i charakteru młodych ludzi oraz ich dobrego samopoczucia. Ponadto omówione zostały wyniki badań dotyczących wpływu sztuk walki i teorii dobrego samopoczucia. Artykuł jest syntezą owych rozważań ujętą w ramy teoretyczne i pojęciowe. Podkreślona została rola *taekwondo* (TKD) i teorie potrzeb w zakresie dobrego samopoczucia.

Wyniki. W pracy wykazano, że (1) dobre samopoczucie młodzieży ma różne wymiary i młodzież ma zróżnicowane potrzeby podstawowe; (2) szkolenie TKD ma różne komponenty; oraz (3) urozmaicone elementy treningu pomagają młodzieży w zaspokojeniu ich podstawowych potrzeb, tym samym poprawiając ich dobre samopoczucie.

Wniosek. Teorie oparte o analizę potrzeb w zakresie dobrego samopoczucie mogą być wykorzystywane przez naukowców i inne osoby, aby zrozumieć i wyjaśnić, dlaczego trening sztuk walki poprawia samopoczucie młodzieży.