

Sport Training to Promote Physical and Mental Health of Adolescents in the New Normality Post Covid-19

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Abstract

Introduction: Today's adolescents belong to the digital era, immersed in apps, electronic games, social networks; these facts led to extreme negative outcomes such as sedentarism, overweight, obesity, diabetes, behavior troubles. This last one includes isolation, lack of verbal communication, absence of solidarity, lack of empathy, impaired management of emotions, conducting to deterioration of family and social relationships, as well as impaired physical and mental health. The aim was to identify the influence of sport activity in adolescents to promote physical and mental health in the new normality post Covid-19. **Method:** The research is qualitative with phenomenological method, through which reality portraits were obtained, allowing to collect and identify participant's features. Participants were 3 men and 1 woman, beginners and senior students from nursing and sports science schools, aged 22 to 24 years. Specific exercises according to physical abilities of each one were drove, focused in the philosophy of martial arts that include self-care. Data were analyzed according to De Souza Minayo. Original speeches from participants were maintained, narrative and perspectives on their experiences within training, rigor to reach proposed goals and support in their daily lives. **Results:** Three categories emerged. **Category 1.** Martial arts promote values in the trainee, with **sub-categories:** **1.1** They represent a life style of honorability and respect. **1.2** They promote a healthier physical and mental person. **1.3** They encourage values applied to their daily lives. **Category 2.** Martial arts favorably impact in the life of the trainee, with **sub-categories** **2.1** They represent a strategy to face stress. **2.2** They promote resilience facing difficult events. **Category 3.** Martial arts as a holistic support after the pandemic, with **sub-categories** **3.1** They grant physical, mental and spiritual strength to trainee. **3.2** They encourage tolerance and empathy to family members. **Conclu-**

sion: Modeling a physical, psychological, and spiritual system within oriental martial arts setting promotes holistic well-being in adolescents, which favors physical, cognitive-behavioral, emotional and sensorial development among adolescents, as well as diminishing public health problems arising in this step of life after the pandemic.

Keywords

Sport Training, Physical and Mental Health, Adolescents, New Normality

1. Introduction

According to UNICEF (2021) deterioration of mental health stands out due to the confinement by the Covid-19 pandemic; statistics show that 15% of Latin American girls and boys, 10 - 19 years old, diagnosed with mental impairment in the pandemic context; in addition “1 of each 5 youngsters surveyed, between 15 and 24 years of age, mentioned that, in average, they felt depressed or show low interest in doing any kind of activity” (UNICEF, 2021). Mental health in persons worldwide was affected and at risk due to confinement, such that it is possible to observe deterioration of population mental health, whose sensations of anxiety, anguish, uncertainty and disorientation increased (Viorato-Romero et al., 2023).

Today's adolescents belong to the digital age, immersed in apps, electronic games, social networks; these facts led to extreme negative outcomes such as sedentarism, overweight, obesity, diabetes, behavior troubles. This last one includes isolation, lack of verbal communication, absence of solidarity, lack of empathy, impaired management of emotions, conducting to deterioration of family and social relationships, as well as impaired physical and mental health (Tapia-Pancardo et al., 2023; Tapia et al., 2017). This may lead to a diminished social, scholar, and recreational activities, even to trigger risk behaviors such as robbery or violence in order to acquire those catalysts.

In the family and the society, parents, teachers, relevant adults, and friends are fundamental due to their influence for healthy life style habits of adolescents; today, more than ever, those habits must include physical and mental self-care, ways to express affection, interrelationships, how to solve conflicts, and develop emotional intelligence, resilience and protection behaviors (Gorostieta et al., 2021; Tapia & Villalobos, 2020).

Human beings throughout history have been dedicated to culture of their bodies by means of physical exercise that help to increase physical and coordinated skills, to enrich health benefits for cognitive development and for the efficient decision-making.

Every human being is unique and unrepeatable, meaning that its thoughts, reactions, feelings, and actions are its own, and so different. Throughout history

individuals looked for physical and mental endurance, comparing with peers to stand up in better positions, higher rankings to be the best in personal, professional, and social status and to be physically and mentally competitive. It is highlighted that to reach success in this competency the method to follow should be implemented according to mechanisms of being human, such as physical and coordinated skills as well as neuro-sensitive abilities. Accordingly, the method should have a multidisciplinary team as backup, the necessary means, and due constancy, discipline, and adaptation to the new normality after the pandemic. It is possible to reach a radical change in thinking, sensing, perception, and analysis of elements in any risky situation, as well as to encourage resilience to evolve in cognitive development among today's adolescents being accompanied. The aim was to identify the influence of sport activity in adolescents to promote physical and mental health in the new normality post Covid-19.

2. Method

The research is qualitative with phenomenological method, which pretends to understand social phenomena through actor's perspective, granting reality as perceived important by subjects; subjective perceptions and interpretations coming from experience, the objective actions or behaviors and the context (Piza, 2019). Qualitative researchers explore phenomena in social, cultural, political, and physical settings around the persons they are studying, which frame the holistic focus characteristic of the interpretative perspective.

This was a process that obtained portraits from reality, it allowed collection and identified attributes of participants, as well as their feelings and perception inside the sports training experience.

2.1. Inclusion Criteria

Men and women in early, middle and late adolescence, training a sporting activity related to martial arts in the new post-covid normal.

2.2. Participants

In this voluntary participation four informants were inscribed, and a pseudonym was assigned to each one according to the school of martial arts Zhanshi Gu Quán Dao TKD: Genbu, Byakko, Sheng Ryu and Susaku. Participants were 3 men and 1 woman, beginners and senior students from nursing and sports science schools, aged 22 to 24 years.

2.3. Setting

Research was conducted in a university offering the sessions of the school of martial arts Zhanshi Gu Quán Dao TKD, in coordination with its representative, a school nurse, and the Psychology Department, the gymnasium was the setting due to its large capacity for students to move in the standard practices, in order to get the skills as well as to improve them in the techniques according to the

type of exercise. The rules from the school and those of the dojo are posted in the gymnasium walls for trainees to follow, they emphasize respect to teachers and guides that will accompany the beginner trainee, and the university building; in this way complying with martial arts principles that help personal growth of trainees, inside the gym and in their daily life. To stay in the gym setting involves observation of rules and principles of school.

2.4. Data Collection

Data collection was through semi-structured interviews, narratives, and observation of the trainee; the interviews focused in sensing and perception of participants regarding their training, as persons, their interpersonal relationships, and their daily life in the new normality (De Souza Minayo, 2007).

2.5. Procedure

According to training schedule and participants' skills in their daily practice, specific exercise sessions of 1.5 h during 30 days, regarding physical abilities of each trainee, were impulsed. Martial arts activities are focused in self-care exercises to keep in the range of normal weight, training was based in specific goals, sessions variable in time for training, practicing the techniques and analysis of combat tactics, cognitive progression to favor memorizing movements patterns related to speed and acceleration of the opponent in a competition setting (attacks, defenses, and movements), in order to process information and make decisions to execute an efficient, functional and variable counterattack (Sánchez-Rodríguez & Bohórquez-Aldana, 2020).

2.6. Ethical and Legal Aspects

Ethical and legal aspects were based on the principles of the Declaration of Helsinki, under the principle "It is the duty of physicians who are involved in medical research to protect the life, health, dignity, integrity, right to self-determination, privacy, and confidentiality of personal information of research subjects. The responsibility for the protection of research subjects must always rest with the physician or other health care professionals and never with the research subjects, even though they have given consent". Each student of nursing and sports science signed an informed consent according to Nuremberg code and local law (World Medical Association, 2023).

2.7. Data Analysis

Data were analyzed according to base a De Souza Minayo. The original speech of participants, the narratives of their living situations, as well as their perspective on the training experience, and the rigor to reach the proposed goals were kept. Several tasks were done, such as information acquisition, data transcription and coding to reach conclusions, transcriptions were approved by participants (World Medical Association, 2023).

3. Results

After the qualitative analysis of data, **Table 1** shows informants' characteristics based in the principles of De Souza Minayo (**Table 1**). Three categories emerged with sub-categories (**Table 2**).

4. Discussion

Accompanying an adolescent, today more than ever, requires organized strategies, since the anxiety post-pandemic triggered insecurity, anxiety, and deterioration in interpersonal relationships, so the importance to select and arrange interdisciplinary interventions. In the psychodynamic behavioral model, it is pretended to create a sense of support for growth or evolution of the adolescent, both physically and mentally; in this step of life so complex, filled with risks and opportunities, alternatives for adequate methods that motivate a radical change in persons, within and out of their settings (social, family, scholar, etc.) do exist (Utility of the Psychodynamic Model as a Treatment, 2021; Gutiérrez-Martínez et al., 2020).

The first step relates confidence relationships, in reference to adolescents with closed mind which in order to defend themselves behave aggressive; however, this is due to their distrust in surrounding people, then martial arts provide that interaction among peers in the classroom, such that through integral support and binding the adolescent learns step by step, interacting with the others. The second step is emphatic in the mental decision of the trainee, to learn from mistakes by repeating and analysis of their movements. Finally, the third step emphasizes interaction among equally trained peers, which through an exercise or

Table 1. Informants' characteristics.

Pseudonym	Age	Gender
Genbu	22	Male
Byakko	23	Male
Susaku	23	Female
Sheng Ryu	24	Male

Table 2. Emerging categories.

Categories	Sub-categories
Category 1 Martial arts promote values in the trainee	1.1 They represent a life style of honorability and respect. 1.2 They promote a healthier physical and mental person. 1.3 They encourage values are applied to their daily lives.
Category 2 Martial arts favorably impact in the life of the trainee	2.1 They represent a strategy to face stress. 2.2 They promote resilience facing difficult events.
Category 3 Martial arts as a holistic support after the pandemic	3.1 They grant physical, mental and spiritual strength to trainee. 3.2 They encourage tolerance and empathy to family members.

activity the focused adolescent discovers other groups, with the same interests and values and identify protection factors. Among protection factors is the constant practice of martial arts, but there is a difference between martial arts and physical violence, i.e., the adherence to a life philosophy or conduct code, the organization of techniques and tactics in a coherent system, and the coding of effective methods proved in antiquity, which is coincident with **Category 1**. Martial arts promote values in the trainee, with **sub-category 1.1** They represent a life style of honorability and respect, which supports the following speech:

[] *The teacher mentioned to us in the class that there are five requisites for being a good martial arts individual: dedication, desire, constancy, adaptation, and discipline, during training I feel good with myself, I see my growth and feel more empathic, supportive, and responsible of what I do in my daily functioning, such as being student, son, and trainee in martial arts.* **Sheng Ryu**

Values are principles that allow ourselves to behave according of what we do as persons, they are fundamental beliefs that help us to prefer, appreciate, and elect things and behaviors instead of other, their start up and development occurs within the family, and its promotion along life time (Pérez & Castillo, 2019).

The importance of values lies in that they are the basis to remember and ascertain the essential character of solidarity relationship with the others, it is a fact that plenitude as a person is only possible if a self-harmonic communication, and with others is reached; in addition, to accept feedback from others the individual expands its panoramic, experiences, and personal development and it will be harmonic and prosper. It is coincident with **sub-category 1.2** They promote a healthier physical and mental person, as supported by the following speeches:

[] *The major advantages that I obtained were lost weight, increase in muscle mass, to get endurance, more energy for my daily activities, and to acquire healthy habits.* **Susaku**

[] *The way I do my training routine and habits is based in what my instructors have taught me, the benefits arose in my muscular growth, force, resistance, and tranquility I obtained due to exercise after the confinement.* **Sheng Ryu**

[] *Martial arts allowed me to be more self-confident, to keep focused, to control and release my negative emotions and stress through meditation.* **Susaku**

The **sub-category 1.3** They encourage values applied to their daily lives, is shown in the following speeches:

[] *Martial arts' principles regarding surroundings and pacific coexistence with the others became clearer to me.* **Byakko**

[] *They made me proactive to take decisions and to analyze the elements of any situation.* **Sheng Ryu**

Without the permanent promotion of moral values for family, the society, and in the current case, martial arts training, human being tends to be a lonely and selfish entity, and its world is reduced unreasonably to himself. Then sports training in martial arts promotes harmony with self and with the other, leading

to knowledge of an objective order of values, and the goals trainee must reach freely to be a better person each day (Quicios, 2021; Hernández & Gutierrez, 2021).

Martial arts are a discipline that promotes social behavior norms, strategies to avoid hurt others by pleasure, to have a better life but also they prepare the trainee's endurance facing adverse events, to instill responses for a given situation. This is in agreement with **Category 2** Martial arts favorably impact in the life of the trainee, and with **sub-category 2.1** They represents a strategy to face stress, as shown with the following informants' speeches:

[] *Martial arts allowed me to develop the ability to manage my emotions, and to understand the others, they gave me the opportunity to think over myself and surroundings, giving me a wider perception and consciousness about social coexistence.* **Byakko**

[] *Exercise helps me to keep my physical condition, to be active, lively, and no fall in desperation when I feel overwhelmed by academic pressure, it helps me focused and energetic every day.* **Susaku**

The perspective of the trainee in doing martial arts constant exercise, focuses the adolescent in perceiving what is happening in its surroundings, a conscious focus to observe, analyze, and thinks about he and other adolescents experience in their daily life; the repercussions of Covid-19 affected the whole world, mainly adolescents, which were isolated in a crucial moment to coexist with peers, waiting in desperation, felt lonely, and prone to fall in risk behaviors, physical inactivity, cardiovascular problems in the short term, consumption of substances, among others (Castillo-Megchun et al., 2021; Tapia et al., 2021).

During constant practice students face risk situations that might represent a stress factor when training or in a competition, hurry up to daily food consumption for adequate weighing (according to competition category), weather changes, and metabolism of the contestant, as well as the burden to the contestant due to the support of peers, the resilience of trainees to face these situations looking ways to reach the goal, even to be the champion of the contest (Hernández & Gutierrez, 2021). This agrees with **sub-category 2.2** They promote resilience facing difficult events, as exemplified in the next speeches:

[] *Those principles helped me to be strong after the pandemic, to start my activities with dedication, and to recover from the situation in the best way, these because martial arts teach discipline but also teach to be positive, keep calm, be brave facing adversity, to meditate and analyze the situations.* **Genbu**

[] *Martial arts promoted a change in the way I behave, now I am more positive and patient about difficult situations that I face in my daily life.* **Sheng Ryu**

Resilience means to re-structure our psychological resources facing new circumstances and our needs. In this way, resilient persons overcome adversity in their lives, but also a step further and used those situations to grew up and develop their potential to the top (Tapia et al., 2021). Martial arts show a holistic approach since in difficult moments help trainees to endure or be a better person, dealing with the way they behave, to react before a situation that leads to

risk behavior within the family, the society, or the individual. Primarily the integral transformation of a person is highlighted, such that it manages any situation that alters its surrounding by using the tools of oriental martial arts (Quicios, 2021; Hernández & Gutierrez, 2021). Accordingly, this is coincident with **Category 3** Martial arts as a holistic support after the pandemic with **sub-category 3.1** They grant physical, mental and spiritual strength to trainee, and **sub-category 3.2** They encourage tolerance and empathy to family members. This is shown as follows:

[] *Martial arts helped me a lot, now I am more disciplined and committed with my duties, no doubt, doing physical activity made me aware of my surroundings, I have more energy, they helped me to care of my body and feel peaceful myself.* **Sheng Ryu**

[] *Martial arts allowed me to feel confident of myself, to progress with patience, wisdom and courage facing the daily adversities.* **Susaku**

Martial arts, such as taekwondo, have as a goal the teaching and searching of paths, promoting natural order. The aim is to teach the human being to be one with nature, teaches to flow with self-integration in harmony. Taken together martial arts promote emotional control, based in strength honor, respect, modesty, courtesy, and gratitude that make a trainee in martial arts. Mental development of trainees through meditation in martial arts, and physical training to reach the desired goals needed effort, willpower, and time from each participant contributed a stress facing tool in difficult situations. Then it could be an excellent option for the academy to respond the needs of vulnerable groups.

5. Conclusion

Modelling a physical, psychologic, and spiritual exercise system within oriental martial arts setting, promotes holistic welfare in adolescents which favor the decrease in public health problems.

Recognizance of values transmission in martial arts is highlighted, which strengthen the lifestyle of the trainee, promoting humanism, empathy and solidarity, emotional control improving the behavior and physical skills, as well as diminishing risk factors of negative behaviors transforming them in assertive and of self-care.

Holistic care favored by martial arts yields tools for assertive decisions taking in difficult situations, such as the Covid-19 pandemic, analyzing the problem with tolerance, meditation and empathy to promote respect in the family, social, and individual surroundings, also with responsibility for the physical and mental care of the community around the participants.

The teacher in education focused in educational management is able to work in a discipline but multidisciplinary as well, with the goal to preserve, identify, analyze and execute the necessary strategies to keep the physical and mental health of vulnerable groups, such as children and adolescents contributing to solve the country's needs.

Authors Contributions

LGHT and LOM designed the research protocol, LGHT implemented training sessions, LGHT and DCTP collected information and analyzed qualitative data, LGHT, LOM and DCTP wrote, revised and approved the final manuscript.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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