Uluslararası Bozok Spor Bilimleri Dergisi (2021) 2(2), 1-26 Bozok International Journal of Sport Sciences (2021) 2(2), 1-26



# Establishing Peace through Sport Activities: Changing Mindset of Youngsters Belonging to Countries having Conflicts

## Syed Arif KAMAL<sup>1</sup>, Shahid Ali KHAN<sup>2</sup>

<sup>1,2</sup> The NGDS Pilot Project and ISST, University of Karachi Karachi, Pakistan; profdrakamal@gmail.com

#### To cite this article/Atıf icin

Kamal, S. A., Khan, S. A. (2021). Establishing peace through sport activities: changing mindset of youngsters belonging to countries having conflicts. *Uluslararası Bozok Spor Bilimleri Dergisi (Bozok International Journal of Sport Sciences)*, 2(2), 1-26.

#### Abstract

South Asia is a hotspot, with four nuclear and missile powers sharing borders. In order to promote peace-building efforts, it is proposed to use sport diplomacy. Taking India-Pakistan conflict as an example, this paper proposes to change the mindset of future generations by organizing regional summer camps for athletics, squash and cricket with fifty percent of the time allocated to educating the players about culture, history and geography of the countries in the region in addition to equipping participants with power skills. Growth-and-Obesity Vector- Roadmaps of all players are generated as part of their comprehensive psychological and physical examinations combined with fitness testing at the start and the end of summer camp along with posture and gait training.

**Keywords:** Soft power • smart power • intelligent power • smart-intelligent power • protection from COVID-19 • athletics • squash • cricket • regional summer camps

Abbreviations: *BMI*: Body-Mass Index • CDC: Centers for Disease Control and Prevention • CPEC: China-Pakistan-Economic Corridor • CTBT: Comprehensive-Test-Ban Treaty • EU: European Union • ICBM: Inter-Continental-Ballistic Missile • ICC: International-Cricket Council • IED: Improvised-Explosive Device • NGDS: National Growth and Developmental Standards for the Pakistani Children • NPT: Non-Proliferation (of Nuclear Weapons) Treaty • ODI: One-Day International • <sup>P</sup>: percentile • R&D: Research & Development • SPD: Strategic-Planning Division (in the context of the military setup of Pakistan) • UN: United Nations • USSR: Union of Soviet Socialist Republics (also called SovietUnion)

**Units:** cm: centimeter(s) • m: meter(s) • ft: foot (feet) • in: inch(es) • kg: kilogram(s) • lb: pound(s) • oz: ounce(s) • yd: yard(s)

**Conversion Factors:**  $1 m = 100 cm \bullet 1 ft = 12 in \bullet 1 in = 2.54 cm \bullet 1 kg = 2.205 lb \bullet 1 lb = 16 oz \bullet 1 yd = 3 ft$ 

Names of the countries are listed alphabetically throughout the paper.

<sup>\View</sup>**Meritorious Professor Dr. Syed Arif Kamal**; PhD (Neuroscience); MA, Johns Hopkins, Baltimore, MD, United States; MS, Indiana, Bloomington, IN, United States; Ex-Member, AAHPERD and Subject Committee, Physical Education, Health and Sport Sciences, NTS Pakistan; Ex-Acting Vice Chancellor; Ex-Dean, Faculty of Science; Ex-Chairman, Department of Health, Physical Education and Sports Sciences; Interdepartmental Faculty, Department of International Relations and Department of Computer Science, University of Karachi • *paper mail*: Founding Project Director, the NGDS Pilot Project and Visiting Faculty, ISST, University of Karachi, PO Box 8423, Karachi 75270, Sindh, Pakistan • *homepage*: https://www.ngds-ku.org/kamal • *the NGDS Pilot Project URL*: https://ngds-ku.org D 0000-0002-1711-4827

<sup>n</sup>Shahid Ali Khan; PhD Candidate (Health and Physical Education); MPhil (Health and Physical Education), University of Sindh; MSc (Health and Physical Education); MA (International Relations), University of Karachi; Director, Physical Education, Government Degree Boys College, Korangi 2<sup>1</sup>/<sub>2</sub>, Karachi 74900, Sindh, Pakistan; shahid.physicaleducation@gmail.com <sup>(1)</sup>/<sub>2</sub>0000-0001-9543-5987

# **INTRODUCTION**

South Asia has become a focal point of armed conflicts for quite some time. With the presence of four border-sharing nuclear and missile powers and involvement of another such power from a very far land, it has turned into a hotspot, which may erupt anytime resulting in civil wars and cross-border infiltrations. The rampant corruption of the ruling elite in most of these countries has resulted in accumulation of wealth in a few hands deposited in foreign banks instead of being spent on nation-building efforts. The political opportunists and criminal gangs have enchased this situation by sowing seeds of anarchy through escalating ethnic and religious differences among various factions of the community. This is need of the hour to change the mindset of future generations in these countries to learn to accept differences of opinion and feel empathy for sensitivities of others. The youngsters should be able to realize that a progressive society has diversity and inclusiveness, which encourages dialog instead of confrontation. The leaders of tomorrow should develop tolerance for multiple interpretations of a situation and able to extract truth out of a sea of lies.

In this paper, it is proposed to organize regional summer camps of 3-month duration to coach athletics, squash and cricket with half of the time spent on educating the players about culture, history and geography of the region in addition to imparting life skills to the participants. The message of peace and harmony is to be reinforced year-round by conducting weekly ZOOM sessions, after the players return to their home countries. Upon completion of these camps the participants should be physically active and mentally mature to take up challenges faced by their communities with a positive approach.

# CONFLICT SITUATION AT THE STATE LEVEL

In order to understand the origin of conflicts at the state level, we discuss some basic ideas used in the discipline of international relations (Kamal, 2010c):

# **Hard Power**

*Hard power* is the ability of a nation to command another sovereign country to take the dictating nation's desired course of action. Economic and military means are, generally, used to achieve this goal.

#### Soft Power

The phrase *soft power* was coined by Joseph Nye in 1990, which may be understood as a nation's capability to attain the desired goals through persuasion by diplomatic means utilizing a deep knowledge of culture and history.

#### **Smart Power**

*Smart power* is a delicate combination of soft and hard powers into a winning strategy. Joseph Nye mentioned this term in his 2004 book on soft power. Later in the same year, Suzanoe Nossel wrote an article in *Foreign Affairs*, with the same title.

#### **Simulation and Soft Power**

The role of simulations in deciding the use of soft power cannot be underestimated. Recent international conflicts have hinted that soft power is a better option as compared to hard power. Simulation is a test run with mock data instead of real data. *Guarded-graduated* (\_guarded' means analysis of consequences of each action through precedence and influence graphs and \_graduated' means application of different measures step-by-step) use of soft power may resolve conflicts in many



Figure 1. Handling of conflict situation

situations. It is better to carefully select a roadmap of progressively intensifying actions to pursue an issue, in line with national grand-strategic objectives. This seems to be a better course of action as compared to a sudden outburst of emotional actions, with zero follow through (monitoring) and follow up (evaluation). The conflict situation comes up when the current state of affairs (concept of navigational path in the context of space-flight dynamics) is very far away from the desired state (concept of guidance path). A calculated application of soft power (concept of optimal control) may turn the situation in the desired direction (Figure 1). The concepts of equilibrium, non-equilibrium, transient and steady state (perspectives from statistics, physics and control theory) should be employed to study international conflicts, steady state being the optimal solution resulting in conflict management; a sustained steady state might be achievable after conflict resolution. Simulations should help in making decisions to choose an optimal path to reach steady state with minimum loss of life and damage to eco-system in the least possible time (Kamal, 2010*a*).

# **Intelligent Power**

Intelligent power is a generalization of smart power, which uses diplomacy, persuasion, empathy for cultural norms and religious sensitivities, combined with an understanding of history as well as establishing personal bridges through personality analysis of leaders and fathers of nations. A certain cause or issue is supported through scientific research as well as analytic arguments, resulting in shaping public opinion. In addition, human-right violations (if present) may be pointed out and indirect and limited use of hard power is suggested. Special taxes may be imposed on imports from non- coöperating countries (in particular, the ones, who show a gross disregard for sensitivity to major historical religions of the world) combined with sanctions, embargos as well as suspension of privileges to use air space, airports and seaports (Kamal, 2011*a*).

# **Smart-Intelligent Power**

*Smart-intelligent power* is useful, when there exists a high probability of active engagement, soft power has ceased to be applicable and smart power is only, partially, giving results. Further, intelligent power is not generating the desired outcomes. Smart-intelligent power is a combination of political,



**Figure 2.** Ingredients of smart-intelligent power — soft power includes diplomacy and complex economic interdependence; intelligent power includes propaganda and role of intelligence agencies

military and intelligence doctrines (Figure 2), using the techniques of conflict transformation and conflict management (Figure 3), shaped through an in-depth understanding of history, geography and civics of the countries of engagement. The military doctrine should be formulated on knowledge of weaknesses of opponent and determining the best time to start active engagement, if absolutely needed. Threat modeling should be performed and battle-readiness demonstrated through technological and operational superiority in military exercises and war games as well as published and presented work in the science of weaponry combined with cold intellectual calculations (Mansoori, 2021) to determine war- readiness index in the context of smart-intelligent power — preferred use of weapon by the opponent, time and place of attack, preparing population for various threats, development and testing of tactical weapons, addition of cyber and space commands along with land, sea and air commands (Kamal, 2014).

# **CONFLICT PREVENTION AT STATE LEVEL**

*Conflict Prevention*, first put forward half-a-century ago by Former UN Secretary-General Dag Hammarskjöld, refers to a number of activities and strategies in the context of peace building that are employed to preempt and eventually neutralize potential triggers to violent engagements among states.

DOVE	PEACOCK
Indirect & Supporting	Direct & Supporting
(People-Oriented)	(Idea-Oriented)
Seeks Acceptance	Seeks Recognition
Int. Motivator:	Int. Motivator: The
Involvement	Chase Spontaneous
<b>Consultative Decisions</b>	Decisions CONFLICT
CONFLICT	MANAGEMENT
TRANSFORMATION	
OWL	EAGLE
Indirect & Controlling	Direct & Controlling
(Procedure-Oriented)	(Result-Oriented)
Seeks Accuracy	Seeks Productivity
Int. Motivator: The	Int. Motivator: Winning
Process Deliberate	Decisive Decisions
Decisions CONFLICT	CONFLICT
RESOLUTION	GENERATION

Figure 3. Conflict situation and personality style

Table 1. Color-coding for handling of sensitive information

White: Publishable work in the public domain
Green: Could be shared with other SPD organizations in the country as well as friendly countries
Yellow: Could be shared within the same SPD organization
Red: Could be shared with members of the core R&D group on need-to-know basis
Black: Key information to be shared with the core team operating the commissioned product

## **Role of Information Processing in Handling Conflicts**

Tahir (2015) cautions against fake media in the following words, —media is used to break the will of a people through false propaganda and to show evil in good light and to show good as evil. Information handling and dissemination is, not only, important in the public domain, but also, in the military domain.

There is a need for intense training of employees and officers of SPD organizations in handling of sensitive information. It is suggested to color-code information and data as per criteria given in Table 1.

For information transmission, a cipher code, which is very difficult to break and does not require a keypad to decode the message, is needed. The message text may be converted into encrypted code using standard expressions available in easily accessible mathematics textbooks by converting letters and numbers through one-to-many assignment, making it virtually impossible to break the code by frequency of use through pattern recognition.

The area of information processing is critical in making sensitive decisions. It, also, plays a key role in conflict resolution. The different modes of information processing in the human brain are serial, which is dominant in the left hemisphere, vs. *parallel*, which is dominant in the right hemisphere. Serial processing represents mathematical and logical mindset and works better in conflict resolution, generally, resulting in a \_roadmap' (permanent solution), whereas, parallel processing, represents administrative mindset and works towards *conflict management*, ending up with peace process' (temporary arrangement). Flowchart of the first one (roadmap) utilizes *precedence graph*, which spells out the steps needed to achieve sustainable peace and harmony among different groups. Flowchart of the second one (peace process) is based on *influence graph*, concentrating on easing tensions, which could be considered as equivalent to lowering temperature (in the context of thermodynamics, a sub-discipline of chemistry and physics) so that ignition (armed conflict) is prevented. The peace process is intended to prevent active engagement (war/armed conflict) temporarily, followed by a comprehensive approach to conflict resolution. Owl (indirect and controlling) administrative style is most suited for conflict resolution, whereas *peacock* (direct and supportive) style works best in conflict management (Figure 3). Diplomats are, generally, indirect and supportive, making it easier for them to initiate dialogs (administrative style dove). The persons having administrative style eagle are direct and controlling. Instead of resolving old conflicts, such individuals may generate new ones. In terms of information processing, it is imperative to check authenticity of information as well as conflict of interest by checking sources of support or spheres of influence. NN graphs, available on Internet, may be helpful in finding sphere of interaction of an individual, company or think tank. One needs to consider more than one (but less than five) hypotheses before reaching a conclusion (Kamal, 2009).

# **Brain Functioning, Management Styles and Conflicts**

The first step is to single out principal role players, which are essential in the process of decision making, with their *efficiency* (conflict transformation and conflict management) and *effectiveness* (conflict resolution). Efficiency is the ability to perform the task within a given time-frame, whereas

effectiveness is the ability to complete the task with a minimum of mistakes. The second step is personality analysis of key-players (Figure 3). *Doves* can become good in resolving conflicts if they become less supportive and more controlling, whereas to manage conflicts, doves should become more direct. In the third step, conflict is transformed using smart-intelligent power so that the ball lies in one's own court with many options consisting of progressively intensifying actions to pursue the issue at-hand. The fourth step is conflict management (*peace process* employing influence graph). The fifth and the final step is conflict resolution (*roadmap* employing precedence graph).

# **Complex-Economic Interdependence and International Trade**

In analyzing conflicts, one must take into account their complexity, the underlying interactions and influences employing tools of complexity science. A manageable approach to conflict transformation, management and resolution is needed in these times; with the first priority being continuity in the international trade through keeping trade routes open (Kamal, 2011*b*). This could be accomplished by utilizing the tools of dynamical-system analysis to determine points of stable and unstable equilibrium in the economic landscape (Kamal, 2014).

In the wake of complex economic interdependence of various countries shaping the political and the military policies, Pakistan should move from geo-strategic to geo-economic partnership.

# THE CONFLICT ZONES IN ASIA

Conflict hotspots in Asia include Afghanistan, Bangladesh, Indonesia, Myanmar, Philippines, Thailand and most importantly India and Pakistan, mainly over Kashmir, Junagarh, Manavadar and Sir Creek.

## **Flashpoint of Four Nuclear-Armed Powers**

Pakistan is sharing borders with China, India and Russia, all possessing nuclear warheads and delivery systems. Any conflict in the region may involve nuclear, biological, chemical, cyber as well as electromagnetic (laser) and particle beams in addition to information and psychological warfare. The effects of any such war shall not be limited to the region but engulf the entire world through nuclear-winter scenario, flooding through rise of global temperature and destruction of earth's eco-system.

# The Bone of Contention between India and Pakistan: Kashmir, Junagarh, Manavadar and Sir Creek

*Kashmir*, situated in the northernmost geographical region of the Indian subcontinent includes the Chinese-administered territories of Aksai Chin and the Trans-Karakoram Tract, the Indian-administered territories of Jammu, Kashmir and Ladakh as well as the Pakistani-administered territory of Azad Kashmir. The Kashmir conflict is a territorial conflict between India and Pakistan, with China playing as the third-party role. The conflict resulted into three wars between India and Pakistan as well as several other armed encounters.

*Radcliffe Line* was the boundary demarcation line between the Indian and the Pakistani portions of the Punjab. We are not discussing the portion marking the division of Bengal, as it is relevant in the present scenario. Historically, disputes remained regarding the Radcliffe Line's award of the Gurdaspur district, which led to the invasion of Kashmir by the Indian Forces. Radcliffe, also, handed over the Muslim majority tehsils of Ajnala (District of Amritsar), Zira, Ferozpur (District of Ferozpur), Nakodar and Jullander (District of Jullander) to India instead of Pakistan. Shahab (2003) has warned against compromising on the issue of Radcliffe Line as a price of normalization of relations with India.

*Junagarh*, a princely state in Gujarat, was governed by the Muslim Babi dynasty in British India. Nabi Baksh, the Constitutional Advisor to Nawab Mohummed Mahabat Khanji III, told Lord Mountbatten that he was recommending Junagarh's association to India. However, upon the advice of Khan Bhadur Sir Shah Nawaz Bhutto, Diwan (Prime Minster) of Junagarh, the Nawab announced on August 15, 1947 that Junagarh had decided to join Pakistan, which was accepted by Government of Pakistan in September 1947. However, the region was forcibly annexed by the Union of India in 1948. The case of Junagarh was brought in UN by Pakistan in January 1948. The UN Security Council obligated its commission on Kashmir to carefully look over the conflict over Junagarh. The case Junagarh of is, still, not resolved.

Founded in 1733, *Bantva Manavadar* was a princely state of British India, becoming a British protectorate in 1818. Manavadar acceded to newly formed Pakistan on September 25, 1947. However, India captured the state using her forces on February 15, 1948.

Originally known as Ban Gango, it was renamed *Sir Creek* after a representative of the British Raj. It a 96-*km* tidal estuary in the unpopulated low-lying wetland of the Indus River Delta bordering India and Pakistan separating Gujrat state in India from Sindh province of Pakistan. The border dispute of Sir Creek has origins based on demarcation from the mouth to the top of Sir Creek eastward to a point on the line designated on the Western Terminus.

In 2020, Pakistan released a political map that showed Kashmir (in her entirety), Junagarh, Manavadar and Sir Creek as legitimate Pakistani territories.

# The Indian Adventurism in East Pakistan

Salik (2017) has given an account of Indian interference in the election of 1971 and how Shaikh Mujeebur Rahman was determined to create Bangladesh even before the general elections. Shaikh Mujeebur Rahman along with 22 other accomplices was indicted in Agartilla Conspiracy on January 20, 1968, but he was set free on March 10, 1968 due to political pressure. Aziz (1974) opines that release of Shaikh Mujeebur Rahman became very expensive for Pakistan in the form of her disintegration in 1971. It is noteworthy that Shaikh Mujeebur Rahman and his family met a very terrible end in the early hours of August 15, 1975.

With some grave mistakes from our rulers, this Indian adventurism resulted in splitting Pakistan into 2 parts. It should be noted that mastermind of the East-Pakistan Project, the third Prime Minister of India, Indira Gandhi, also, met a tragic end on October 31, 1984, at the hands of guards belonging to one of India's persecuted minorities.

Pakistan, however, made a strong comeback a few years after that tragedy and became a nuclear as well as a missile power, capable of delivering nuclear warheads.

Creation of Bangladesh has infused new blood in the Khalistan Movement and aspirations of a United Bengal — the Bengalis allowed division of their province in love of their Muslim identity; India sowing seeds of discord among them naturally ended up with thinking in the Bengalis: why to be contended with their divided province?

# Role of Former Soviet Union (USSR) in East Pakistan

Marker (2010) copies in his book Kosygin's message to Yahya Khan on June 24, 1971, —In no case shall we (*USSR*) allow a similar problem (*refugees of Palestine*) to lie like a heavy weight on Pakistan-Indian relations, which are not simple as they are. Words in italics are added by the authors. This heinous crime in the history by this country, with the largest area of land and the maximum stockpile of nuclear weapons, ended up in her economic collapse by her increased thirst of regional domination

through invasion of Afghanistan and breakup into more than a dozen fragments (remember Pakistan was broken in only 2 parts, retained its name, its flag and its national anthem); becoming part of history as Former USSR, losing its name, its flag and its national anthem.

# The Current Scenario

The present-day India is weakened by her own multi-cultural and not so rich geographical entity, having its own problems of grossly failing to provide safety and security to half of her social fabric — her women (Pidd, 2012), a class system (brahmans, ksatriyas, vaisyas, sudras/dalits) deeply rooted in the Hindu culture (Newell, 1955) and last, but not the least, a systematic disregard of the fundamental rights of its largest religious minority, the Muslims.

In any future conflict of India and Pakistan, Russia should remain neutral, with the knowledge of the history of result of intervention in 1971 eventually resulting in wiping off of the Former Soviet Union. United States, with its own problems, shall not be in a position to openly side India. Israel, with the current quest of peace deals, would not like to antagonize the Muslim world.

With the heavy economic investment in CPEC, China would like to protect its investment in Pakistan. As a result, China would be on the same page with Pakistan in the wake of any armed conflict with India. In fact, India is not yet able to resolve its border disputes with China in the Ladakh region.

At the start of this century, Pakistan surpassed India in the number of nukes, the quality of drones and the fighter aircrafts as well as the training and the morale of her Armed Forces. According to Izuyama, Ogawa (2003), —Pakistan's nuclear policy is largely a passive response to India's nuclear policy, as will be seen later from the stance toward the NPT and the CTBTI. It should be crystal-clear to the Indian politicians and the army personnel that 2021 is not the same as 1971 and any new adventurism from the Indian side would have disastrous consequences for the region, in particular, and the world, in general.

Would it be wise for the Indian regime to continue clinging to Kashmir, Junagarh, Manavadar and Sir Creek or to think big to get access to peace and prosperity for her people and elevate human-development index of the Indian people and gross-national-happiness index of her country?

# **ROLE OF SPORT IN INTERNATIONAL RELATIONS**

Beacom (2000) studied how evolution of international sports institutions can provide insights for theorists dealing with international relations, who try to understand a political environment, which cannot be modeled in terms of the traditional state-centric paradigms.

# **Conflict Prevention through Sport**

Kaidal, Badaki, Sanusi (2014) suggest that in order to avoid conflict and achieve global peace, all stakeholders linked with sporting events (sport managers, handlers and enthusiasts) must train themselves to sense conflicting situations among nations and develop sport strategies to manage such conflicts. Increasing communication may be one of the ways to lower temperatures (Kamal, 2007).

# Sport Diplomacy and the World Peace

Whitley, Farrell, Wolff, Hillyer (2019) surveyed actors (practitioners, scholars, students) in the field of sport for development and peace. They recommend ways through which the field could be improved, which include enhanced access to resources and research, increased quality collaborations and partnerships as well as meaningful, rigorous research and evaluation. These actors employ sport, physical activity as well as play to achieve specific objectives outlined in the Sustainable Development

Goals, a global agenda adopted by member states of the United Nations in 2015 (Dao, Chin, 2021). In this context, it'll be of interest to consider the work of R. E. Baker, P. H. Baker, Atwater, Esherick (2018), who evaluated a program dealing with US sport diplomacy in Latin America and the Caribbean. Different activities were implemented to cultivate cultural understanding and tolerance. This program may serve as a guideline for our proposed initiative in Asia. Cárdenas (2013) highlights methods employed so that sport may help peace building and conflict-resolution processes.

# Role of Cricket in the India-Pakistan Conflict

India-Pakistan cricket matches have no parallel to any other cricket matches in the entire globe. People of both countries expect superb performance from their respective cricket teams generating tremendous pressure on players. This pressure transforms the game to be more interesting, sensational and watchable (Kholsa, 1965). The Indian Cricket team gained test status in 1932, whereas the Pakistani cricket team obtained membership of ICC in 1948. The first test series between India and Pakistan was held in 1952, which India won by 2-1. Later, the Indian team visited Pakistan in 1955 and the Pakistani team visited India in 1961. Both these series were drawn 0-0. No tour was held till 1978, when the Indian cricket team visited Pakistan for a three-match series. Pakistan won this series by 2-0. The Pakistani cricket team tour of 1987 was memorable in two respects. Firstly, the Pakistani team was led by Imran Khan (who is the current Prime Minister of Pakistan) and, secondly, General Zia-ul-Haq (President of Pakistan at that time) visited India to watch the series, which, possibly, avoided a war between the two countries. This cricket series consisted of five test matches and five ODIs. Pakistan won the test series by 1-0 as well as ODI series by 4-1. There was another tour of Pakistan by the Indian team in 1989. After that cricket matches were played at neutral venues. In the 2011 World Cup, Pakistan played against India in the semifinal, but lost the match. In December 2012, the Pakistani team toured India, winning the series by 2-1. A meeting between the Indian and the Pakistani cricket authorities at the Indian board's headquarter at Wank Hede Stadium was disrupted by members of the Shiv Sena (Mahmood, 2010). Since then, sadly, there is no significant progress in the restoration of cricket activities between the two countries.

# The Way Forward: Changing Mindset of the Next Generation

Mirza (2021) is hopeful that young minds may act sensibly in this matter, which are in abundance in both countries. The following project may be the first step towards achieving this goal.

# **REGIONAL SUMMER CAMPS AS AGENTS OF SUSTAINABLE PEACE**

Summer camps for child players have a long tradition. These days, students in schools are under pressure by the fast lifestyle. Summer camps provide them with an optimal environment for safe, healthy and relaxed recreation to achieve mental and physical recovery. They encourage child players to achieve goals by creating a sense of friendship and community, improve well-being as well as contribute to the players' overall development (Omelan, Breś, Raczkowski, Podstawski, Polgár, Koltai, 2018). Kaplan-Sayı (2017) discusses organization of enriched summer camps. In enrichment strategy, there are two kinds of enrichment — horizontal and vertical; the first one is based on diversifying course, subjects and activities (increasing breadth) and the second one is changing the content of training to make it more complicated and improving high-level-thinking skills (increasing depth).

# **Summer Camps for Multinational Participants**

The authors propose 3-*month*-gender-segregated-summer camps with multinational-under-11 participants covering athletics, squash and cricket. These are supposed to be enrichment camps as they'll impart superb sport skills in addition to English communication (oral and written) as well as power skills, tailoring the contents according to constraints on time, space and resources as well as physical and mental capabilities of the participants.

#### Athletics

A group of sporting events involving competitive running, jumping, throwing, walking and organized athletics have been held during the Ancient Olympic Games since 776 BC. The most common events are track and field, road running, cross-country running and race-walking. Racing events are won by the finishing position or the time taken (where measured). The player, who achieves the highest (or the furthest measurement) among a series of attempts, wins the jump (or the throw). Henriksen, Storm, Larsen (2018) argue that enhancing young athletes' psychological skills through cultural leadership of the coach and organizational culture of the team is more likely to bring out a long-term change in the manner athletes approach their trainings and competitions. Perreault, Gonzalez (2021) describe longterm-athlete-development model with a focus on diversification in youth sport. Active start is the first stage, which covers the developmental period for under-6 (years) girls and boys. The main focus of active start is developing fundamental motor skills through play instead of structured activities. FUNdamental is the second stage, which covers the developmental period 6 to under-8 (years) in girls and 6 to under-9 (years) in boys. This stage focuses to develop fundamental motor skills of the first stage into a wider range of object control and locomotor skills, emphasizing the development of agility, balance, coördination and speed. Learn-to-Train is the third stage, which covers the developmental period 8 to under-12 (years) in girls and 9 to under-14 (years) in boys. In this stage, children are developmentally ready to adapt fundamental motor skills into sport-related skills. We'll not discuss Train-to-Train, Trainto-Compete, Train-to-Win and Active-for-Life stages as they do not fall into the age ranges being discussed in this work. Domingos, Alves, Sousa, Rosa, Pereira (2020) investigate effect of neurofeedback training in improving performance in athletes. They conclude that athlete group had better results in reaction time as compared to the sedentary group and the control group.

#### Squash

An indoor racquet sport, which was earlier called *squash rackets*. It could be played as singles (2 players) or doubles (4 players) in a court with a small rubber ball. The players try to hit the ball in such a manner that the opponent is unable to offer a valid return. 20 million people in over 185 countries play squash regularly. Catalán-Eslava, González-Víllora, Pastor-Vicedo, Contreras-Jordán (2018) analyzed tactical, decisional and executional behaviors according to expertise level in squash. The correlation between the situational and the applicational tactical principles showed that greater the player's expertise level in both the return as well as the drop shot, better the reading of the game context. The correlation between correct decision-making and better-quality execution was confirmed scientifically for both the return and the drop shot. Williams, Sanders, Ryu, Graham-Smith, Sinclair (2020) studied the kinematic differences between different squash forehand drives. Murray (2018) profiled elite male squash performance using an approach based on situation awareness.

#### Cricket

A bat-and-ball game played between two teams each comprising of eleven players on a field at the center of which is a 22-yd (20-m) pitch with a wicket at each end, the game of *cricket* is very popular in India and Pakistan. The earliest reference to cricket is in South East England dating back to the sixteenth century. With the expansion of the British Empire, cricket reached most of the world. The game's governing body is ICC having over 100 members. With the advent of the computer age, there has been interest in prediction of live score and winning (Lokhande, Chawan, 2018). Jones, Hardy, Lawrence, *et al.* (2019) employed a machine-learning approach to identify game changers in developmental pathways of the English cricket for elite spin bowling. Shah, P. J. Hazarika, J. Hazarika (2017) conducted a study on cricket players' performance using factor-analysis approach. Noorbhai (2020) studied biomechanical implications of the batting backlift technique. S. Biswas, A. Biswas, Bandyopadhyay (2021) examined effects of 4-*week* intervention of practices of yoga on cricket-specific- motor fitness. English (2017) explored development of cricket in South Africa.



Figures 4a, b. Measuring (a) height and (b) mass of a boy in Growth-and-Imaging Laboratory

It is suggested that in the first stage participants from Afghanistan, Azerbaijan, Bangladesh, China, India, Iran, Malaysia, Pakistan, Russia and Turkey should be invited to attend this activity.

# **Team Formation According to Build**

Teams should be formed according to build (Kamal, Khan, 2015). In addition, presentation sessions as well as activities involving sport-science concepts, development of life skills and understanding culture should be organized for participants of the same build in a given session, allowing change of seats in the middle of a session to increase concentration and break mischief-groups (Kamal, Khan, 2018).

# Determination of Build

The first step in determination of build is reliable measurements of heights and weights, preferably, to least counts of (height) 0.005 *cm* and (mass) 0.005 *kg*, as per international standards by reproducible anthropometrists (Figures 4a, b) according to protocols given in Kamal (2016) and step-by-step procedures explained through labeled photographs in Additional File 1 of Kamal, M. J. Ansari, Sarwar, S. A. Ansari, Naz, Jamil (2021). Using these measurements, CDC percentiles of height and mass are computed employing the technique of box interpolation (Kamal, Jamil, Khan, 2011), utilizing Extended Growth Tables, which include heights and masses of boys and girls in the range  $0.01^{P}$  to  $99.99^{P}$ . These Extended Growth Tables are available in Additional File 3 of Kamal, Jamil (2014). For players outside Pakistan scaled percentiles are determined (Kamal, Azeemi, Khan, 2017). For the Pakistani players modified-scaled percentiles are determined (Kamal, M. J. Ansari, Sarwar, S. A. Ansari, Naz, Jamil, 2021). Sum of scaled (or modified-scaled) percentiles is used to assign build of a player.

# Health Surveillance in the Wake of Corona Pandemic

Evans, Blackwell, Dolan, *et al.* (2020) discuss issues related to sport in the face of the COVID-19 pandemic. SOPs to safeguard against COVID-19, COVID-19-mutated, COVID-19-mutated-I, COVID-19-mutated-II, COVID-19-mutated-III, *etc.* as well as infrastructure modifications to maintain physical distancing (in the light of green-engineering principles) are discussed elsewhere (Kamal, Khan, 2020*b*). A summary is available in Additional File 1. Kamal, Khan (2020*b*) mention the names COVID-19-mutated-N (N = I, II, III, ...) for the first time. The authors reiterate the opinion expressed in the above sport-academies paper that those persons, who receive all doses of vaccination and pass the period required for the vaccination to be effective, should, still, adhere to corona SOPs (masking, distancing, waving instead of handshaking/embracing/kissing, hand sanitizing/washing, gloving) as it is not

backed by clinical trials yet that the vaccines are effective for mutated forms of COVID-19. These vaccines have been tested only for COVID-19. There are, also, indications that vaccinated persons could, still be carriers. In fact, these hygienic practices should become the new normal to protect people from common cold and other such communicable diseases.

## Hardening of Bodies of Players

To build up resistance against COVID-19 and other infections, young players should receive sufficient doses of vitamin C (Simonson, 2020) and vitamin D (Kamal, Khan, 2018). Players should have their bodies hardened through adequate exposure to fresh air and sunshine by engaging outdoor sport and cultural activities. A Japanese example is Hikari Kindergarten in Tokyo, which allows their young pupils to play in the snow dressed in shorts only, in addition to letting them study in their classes, unclothed from the waist up (Kamal, 2019). As a result, the students become physically strong as well as emotionally balanced and able to cope better with the challenges of life. Another example is from Russia, where Nikitin children in Moscow suburb, also, adhere to the practice of dressing minimally, making them mentally sharp as well as possessing excellent health, never catching cold (Kamal, 2020).

# Pre-Participation Examinations and Fitness Testing

Complete psychological and physical examinations as well as fitness testing of all participating players are performed as described elsewhere (Kamal, Azeemi, Khan, 2017). These examinations should include height and weight monitoring, posture and gait examinations as well as thorough checkup of the spinal column to rule out scoliosis. If the player is not suspected of having scoliosis, risk of acquiring scoliosis should be determined through a battery of checks described in another publication (Kamal, Raza, Sarwar, 2020).

# Posture and Gait (Weekly) as well as Height and Weight (Monthly) Monitoring

Weekly monitoring and training of posture using moiré-fringe topography and dotted-rasterstereography (Figures 5a-d) as well as dynamic monitoring of sitting posture of players using dotted-raster-



**Figures 5***a-d.* Moiré topographs of (*a*) back and (*b*) front as well as dotted-rastersterographs of (*c*) back and (*d*) front of children; moiré fringe topography and dotted-rastersterography are noncontact, noninvasive and nonionizing techniques used to monitor posture of children — (*b*) first appeared in Kamal, Sarwar, Razzaq (2015) as Figure 5*a* and (*c*), (*d*) in Kamal, Raza, Sarwar (2016) as Figures 4*d*, *a* 

stereography (Wasim, Kamal, Shaikh, 2013) and grating-hologram-type-moiré-fringe topography through projection of distorted grid (Kamal, 2008) on players' backs and shoulders during presentations as well as scientific, cultural and personality-building sessions. To facilitate this monitoring, stools (instead of chairs) should be provided to players. A faulty posture of more than 5 *minutes* should trigger the system to generate visual and acoustic alarm on the pc of player as well as facilitator of the session.

In addition, gait analyses and trainings should be part of the weekly camp routine (Kamal, Rajput, Ansari, 2016).

 $VO_2$  max (or maximal oxygen consumption, maximal oxygen uptake, peak oxygen uptake, maximal aerobic capacity) should be weekly recorded during training of athletics, squash or cricket (D. Badau, Prebeg, Dušan, A. Badau, 2015). Defined as the highest rate of oxygen consumption,  $VO_2$  max is determined during incremental (increasing intensity) exercise — \_V' denoting volume, \_O<sub>2</sub>' oxygen and \_max' maximum. Measurement in laboratory gives a quantitative estimate of endurance fitness for comparison of individual training effects and among people in endurance training.

Monthly monitoring of height and weight is done during the summer camp to keep track of achievement of the recommended targets provided in Roadmaps 2.5/2.6 (see below).

#### Growth-and-Obesity Vector-Roadmaps 2.6

For the Pakistani players Growth-and-Obesity Vector-Roadmaps 2.6 should be generated. Detailed procedure to generate Growth-and-Obesity Vector-Roadmap 2.6 is given in Additional Files 2 and 3 of Kamal, M. J. Anasri, Sarwar, S. A. Ansari, Naz, Jamil (2021). Tables 2a-d give Growth-and-Obesity Vector Roadmap 2.6 of a girl ZHZ covering all 3 age ranges (under-7, under-9 and under-11). Safe sun exposure timings are not given in this paper, the reason being that these timings are the same as in Roadmap 2.5 and given in Table 7e of Kamal, Khan (2020*b*). Case number shown in these tables is not the one appearing in the report given to child's parents. In addition, photographs are not showing the actual child and initials not corresponding to the first letters in the child's name. Lifestyle adjustment, diet and exercise plans for ZHZ have been prepared as per guidelines established in Kamal, Khan (2020*a*) and given in Table 2*e*.

Table 2*a* exhibits **pseudo-gain of mass** between  $1^{st}$  and  $2^{nd}$  checkups — mass put-on from **18.30** kg to **20.14** kg, CDC percentile-of-net-mass dropping from **26.81**<sup>P</sup> to **26.09**<sup>P</sup>. Recall that pseudo-gain of mass is present, when mass gain is accompanied by drop in CDC percentile-of-mass for 2 consecutive checkups (Kamal, Jamil, Razzaq, 2014).

The case of ZHZ was first discussed in detail in 2015 — case history, posture and moiré photographs (Figures 1*a-c*, 2*a-f* of Kamal, 2015) with her growth and obesity statuses analyzed using Growth-and-Obesity Scalar-Roadmap 1.0 (Tables 3*c*, *d*, 4, 5; Figure 3 of Kamal, 2015), reanalyzed using Growth-and-Obesity Vector-Roadmap 1.0 (Tables A4*a-c*; Figure AFIII-4 of Additional File 3 of Kamal, 2017) and last time using Growth-and-Obesity Vector-Roadmap 2.5 (Tables 7*a-e* of Kamal, Khan, 2020*b*).

For participants from outside Pakistan, Growth-and-Obesity Vector-Roadmaps 2.5 shall be generated, as modified-scaled percentiles are not yet available for other countries.

#### End-of-the-Camp Examinations and Fitness Testing

Post-camp complete psychological and physical examinations combined with fitness testing have the purpose of monitoring improvement in health and fitness statuses since enrolment. A psychomotor evaluation of athlete at the start and the end of a module should give insight into psychomotor development because of participation in the sport (Szabo, Neaglu, Ardelean, Sopa, 2019).

These health-surveillance exercises shall have a positive effect on the participating players. During the closing ceremony, top 10 players are given awards based on their scores on Health-and-Fitness Index.

**Table 2a.** Growth-and-Obesity Vector-Roadmap  $2.6^{\otimes}$  of ZHZ (SGPP-KHI-20110412-02/01;<br/>NGDS-BLA-2010-5484/A) —  $1^{st}$  to  $3^{rd}$  checkups

*Gender*: Female **†** • *Date of Birth (year-month-day)*: 2005-06-16 • *Adult-Army-Cutoff Height*: 157.48 cm (19.36<sup>P</sup>) *Father's Height*: **†** 178.20 cm • *Mother's Height*: **†** 170.78 cm • *Target Height*: 167.99 cm (76.12<sup>P</sup>)

Age RangeUnder 7Photograph $ZHZ$ $ZHZ$ $ZHZ$ $ZHZ$ Scanned Signatures $ZHZ$ $ZHZ$ $ZHZ$ $ZHZ$ Class $KG$ 111Date of Checkup (year-month-day) $2011-05-04$ $2012-03-20$ $2012-05-13$ Age (year-month-day) $05-10-18$ $06-09-04$ $06-10-27$ Age (year-month-day) $13.40$ $119.42$ $120.45$ Height (rm) $113.40$ $119.42$ $120.45$ Current-Age-Amry-Cutoff Height (rm) = $3/r$ $3/r$ $11.62$ A Height w. r. t. Current-Age-Amry-Cutoff Height (rm) $+3.95$ $+4.23$ $+4.33$ Current-Age-Amry-Cutoff Height (rm) = $17.64$ $123.90$ $124.92$ A Height w. r. t. Current-Age-Amry-Cutoff Height (rm) $+1.24$ $-4.48$ $-4.47$ Estimated-Adult Height (rm) $5/r$ $5/r$ $5/r$ $10.27$ Notified Status (pertaining-to-height) $0$ $0$ $0$ Notified Status (pertaining-to-height) $0$ $0$ $0$ Net Mase (kg) $\Rightarrow$ $11.8.30$ $20.14$ $20.74$ </th <th>Checkup</th> <th><math>I^{st}</math></th> <th><math>2^{nd}</math></th> <th>3<sup>rd</sup></th>	Checkup	$I^{st}$	$2^{nd}$	3 <sup>rd</sup>
Scanned SignaturesZHZZHZZHZZHZClassKGIIDate of Checkup (year-month-day)2011-05-042012-03-202012-05-13Age (gear-month-day)05-10-1806-09-0406-10-27Age (decimal year)5.886.766.91Puberty Rating*Tanner 1Tanner 1Tanner 1Height (cm)113.40119.42120.45Height (cm)13.40119.42120.45CDC Percentile-of-Height $\Leftrightarrow$ 46.42°46.65°47.02°Modified-Scaled Percentile-of-Height (cm) $\leftarrow$ 109.45115.19116.12A Height w, r. t/ Current-Age-Amy-Cutoff Height (cm) $\leftarrow$ 109.45115.19116.12A Height w, r. t. Current-Age-Amy-Cutoff Height (cm) $\leftarrow$ 13.95+4.23+4.33Current-Age-Amy-Cutoff Height (cm) $\leftarrow$ 117.64123.90124.92A Height w, r. t. Current-Age-Mid-Parental Height (cm)4.24-4.48-4.47Estimated-Adult Height (ft-in)5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)0000Descriptive Status (pertaining-to-height)0000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Was (kg) $\Rightarrow$ 18.3020.1420.74Net Weight (lb-oz)40 lb 5.62 oz44 lb 6.54 oz45 lb 11.71 ozCDC Percentile-of-Heid-based-Optimal Mass $\Leftrightarrow$ 67.43°67.53°67.70°Mu-based-Optimal Mass $(kg) \Rightarrow$ 11.54	Age Range		Under 7	
Class         KG         I         I           Date of Checkup (year-month-day)         2011-05-04         2012-03-20         2012-05-13           Age (year-month-day)         05-10-18         06-09-04         06-10-27           Age (decimal year)         5.88         6.76         6.91           Puberty Rating *         Tanner 1         Tanner 1         Tanner 1           Height (m)         113.40         119.42         120.45           Height (fr-in) ←         3.ft 8.65 in         3.ft 11.02 in         3.ft 11.42 in           CDC Percentile-of-Height ⇔         46.42 <sup>P</sup> 46.65 <sup>P</sup> 47.02 <sup>P</sup> Modified-Scaled Percentile-of-Height         63.01 <sup>P</sup> 63.25 <sup>P</sup> 63.64 <sup>P</sup> Current-Age-Amj-Cutoff Height (m) ←         117.64         123.90         124.92           A Height w, r. t. Current-Age-Mid-Parental Height (cm)         4.24         -4.48         -4.47           Estimated-Adult Height (f-in) <b>5ft 4.06 in 5ft 4.08 in 5ft 4.10 in</b> Modified Status (pertaining-to-height)         0         0         0         0           Net Mass (kg) ⇒         18.30         20.14         20.74         20.74           Net Wass (kg) ⇒         21.54         24.01	Photograph			
Date of Checkup (year-month-day)       2011-05-04       2012-03-20       2012-05-13         Age (gear-month-day)       05-10-18       06-09-04       06-10-27         Age (decimal year)       5.88       6.76       6.91         Puberty Rating <sup>v</sup> Tanner 1       Tanner 1       Tanner 1         Height (m)       113.40       119.42       120.45         Height (fr-in) ←       3 ft 11.02 in       3 ft 11.42 in       3 ft 11.42 in         CDC Percentile-of-Height ⇔       46.42 <sup>p</sup> 46.65 <sup>p</sup> 47.02 <sup>p</sup> Modified-Scaled Percentile-of-Height       63.01 <sup>p</sup> 63.25 <sup>p</sup> 63.64 <sup>d</sup> Current-Age-Army-Cutoff Height (cm) ←       117.64       123.90       124.92         A Height w. r. t/ Current-Age-Mid-Parental Height (m)       -4.24       -4.48       -4.47         Estimated-Adult Height (fr-in)       5 ft 4.06 in       5 ft 4.08 in       5 ft 4.10 in         Modified Status (pertaining-to-height)       0       0       0       0         Descriptive Status (pertaining-to-height)       0       0       0       0         Descriptive Status (pertaining-to-height)       0       0       0       0         Descriptive Status (pertaining-to-height)       0       0       0       0 </td <td>Scanned Signatures</td> <td>ZHZ</td> <td>ZHZ</td> <td>ZHZ</td>	Scanned Signatures	ZHZ	ZHZ	ZHZ
Age (year-monit-day)       05-10-18       06-09-04       06-10-27         Age (decimal year)       5.88       6.76       6.91         Puberty Rating ''       Tanner 1       Tanner 1       Tanner 1         Height (m)       113.40       119.42       120.45         Height (fr-in) ∈       3 ft 8.65 in       3 ft 11.42 in       CDC Percentile-of-Height ⇔       46.42 <sup>p</sup> 46.65 <sup>p</sup> 47.02 <sup>p</sup> Modified-Scaled Percentile-of-Height       63.01 <sup>p</sup> 63.25 <sup>p</sup> 63.64 <sup>p</sup> Current-Age-Amy-Cutoff Height (cm) ←       109.45       115.19       116.12         A Height w. r. t' Current-Age-Army-Cutoff Height (cm) + 3.95       +4.23       +4.33         Current-Age-Mid-Parental Height (cm) ←       117.64       123.90       124.92         A Height w. r. t. Current-Age-Mid-Parental Height (cm)       -4.24       -4.48       -4.47         Estimated-Adult Height (ft-in)       5 ft 4.06 in       5 ft 4.10 in         Modified Status (pertaining-to-height)       0       0       0         Descriptive Status (pertaining-to-height)       0       0       0         Notified Status (pertaining-to-height)       0       0       0         Notified Status (pertaining-to-height)       0       0       0		KG	Ι	Ι
Age (decimal year)5.886.766.91Puberty Rating *Tanner 1Tanner 1Tanner 1Tanner 1Height (m)113.40119.42120.45Height (fr-in) ← $3 fr$ 8.65 in $3 fr$ 11.02 in $3 fr$ 11.42 inCDC Percentile-of-Height ⇔46.42°46.65°47.02°Modified-Scaled Percentile-of-Height63.01°63.25°63.64°Current-Age-Army-Cutoff Height (m) ←109.45115.19116.12A Height w. r. t? Current-Age-Army-Cutoff Height (m)+3.95+4.23+4.33Current-Age-Mid-Parental Height (m) ←117.64123.90124.92A Height w. r. t? Current-Age-Antid-Parental Height (m)-4.24-4.48-4.47Estimated-Adult Height (fh-in) <b>5 fr 4.06 in5 fr 4.08 in5 fr 4.10 in</b> Modified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNet Mass (kg) ⇒18.3020.1420.74Net Weight ( <i>lb-oz</i> )40 <i>lb</i> 5.62 oz44 <i>lb</i> 6.54 oz45 <i>lb</i> 11.71 ozCDC Percentile-of-Net-Mass ⇔57.43°67.53°67.70°BMI-based-Optimal Mass $\langle kg \rangle$ 21.5424.0124.46A says w. r. t. Bult-based-Optimal Mass (kg)-3.24-3.87-3.72Height-Percentile-of-sade-Optimal Mass (kg)11.40-1.72-1.52Status (pertaining-to-mass)-7.12%-7.86%-6.85%Obdified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Der				
Puberty Rating $^{\bullet}$ Tanner 1Tanner 1Tanner 1Height ( $m$ )113.40119.42120.45Height ( $fr$ in) $\Leftarrow$ 3 $ft$ 8.65 in3 $ft$ 11.02 in3 $ft$ 11.42 inCDC Percentile-of-Height $\Leftrightarrow$ 46.42 <sup>P</sup> 46.65 <sup>P</sup> 47.02 <sup>P</sup> Modified-Scaled Percentile-of-Height63.01 <sup>P</sup> 63.25 <sup>P</sup> 63.64 <sup>P</sup> Current-Age-Army-Cutoff Height ( $cm$ ) $\Leftarrow$ 109.45115.19116.12A Height w. r. t' Current-Age-Army-Cutoff Height ( $cm$ )+3.95+4.23+4.33Current-Age-Mid-Parental Height ( $cm$ )+4.24-4.48-4.47Estimated-Adult Height ( $fm$ )162.7116.75162.82Estimated-Adult Height ( $fh$ -in) <b>5</b> ft 4.06 in <b>5</b> ft 4.08 in <b>5</b> ft 4.10 inModified Status (pertaining-to-height)0000Descriptive Status (pertaining-to-height)0000Net Weight ( $h-oz$ )40 lb 5.62 oz44 lb 6.54 oz45 lb 11.71 ozCDC Percentile-of-Net-Mass59.10 <sup>P</sup> 58.20 <sup>P</sup> 61.87 <sup>P</sup> Percentile-of-Net-Mass59.10 <sup>P</sup> 58.20 <sup>P</sup> 61.87 <sup>P</sup> Percentile-of-BMI-based-Optimal Mass ( $kg$ )-3.24-3.87-3.72Height-Percentile-based-Optimal Mass ( $kg$ )-1.40-1.72-1.52Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)				
Heigh (cm)       113.40       119.42       120.45         Height ( $fr-in$ ) ∈       3 fr 8.65 in       3 fr 11.02 in       3 fr 11.42 in         CDC Percentile-of-Height ⇔       46.42 <sup>p</sup> 46.65 <sup>p</sup> 47.02 <sup>p</sup> Modified-Scaled Percentile-of-Height       63.01 <sup>p</sup> 63.25 <sup>p</sup> 63.64 <sup>p</sup> Current-Age-Army-Cutoff Height (cm) ⇔       109.45       115.19       116.12         ∆ Height w. r. t <sup>o</sup> Current-Age-Army-Cutoff Height (cm)       +3.95       +4.23       +4.33         Current-Age-Mid-Parental Height (cm) ⇔       117.64       123.90       124.92         ∆ Height w. r. t. Current-Age-Mid-Parental Height (cm)       -4.24       -4.48       -4.47         Estimated-Adult Height (fr-in)       5 fr 4.06 in       5 fr 4.08 in       5 ft 4.10 in         Modified Status (pertaining-to-height)       0       0       0         Descriptive Status (pertaining-to-height)       0       0       0         Not Mass (kg) ⇒       18.30       20.14       20.74         Net Wass (kg) ⇒       26.81 <sup>p</sup> 26.09 <sup>p</sup> 29.25 <sup>p</sup> Modified-Scaled Percentile-of-Net-Mass       59.10 <sup>r</sup> 58.20 <sup>p</sup> 61.87 <sup>p</sup> Percentile-of-BMI-based-Optimal Mass (kg)       -3.24       -3.87       -3.72 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Height (fr-in) ← $3 ft 8.65 in$ $3 ft 11.02 in$ $3 ft 11.42 in$ CDC Percentile-of-Height $\Leftrightarrow$ $46.42^p$ $46.65^p$ $47.02^p$ Modified-Scaled Percentile-of-Height $63.01^p$ $63.25^p$ $63.64^p$ Current-Age-Army-Cutoff Height $(cm) \leftarrow$ $109.45$ $115.19$ $116.12$ $\Delta$ Height w. r. t/Current-Age-Army-Cutoff Height $(cm) \leftarrow$ $117.64$ $123.90$ $124.92$ $\Delta$ Height w. r. t. Current-Age-Mid-Parental Height $(cm) - 4.24$ $-4.48$ $-4.47$ Estimated-Adult Height $(fh-in)$ $5 ft 4.06 in$ $5 ft 4.08 in$ $5 ft 4.10 in$ Modified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)000Net Mass $(kg) \Rightarrow$ $18.30$ $20.14$ $20.74$ Net Weight $(h-oz)$ $40 lb 5.62 oz$ $44 lb 6.54 oz$ $45 lb 11.71 oz$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ $26.81^p$ $26.09^p$ $29.25^p$ Modified-Scaled Percentile-of-Net-Mass $59.10^p$ $58.20^p$ $61.87^p$ Percentile-of-BML-based-Optimal Mass $(kg) = 21.54$ $24.011$ $24.46$ $\Delta$ Mass w. r. t. BML-based-Optimal Mass $(kg) = 19.70$ $21.86$ $22.26$ $\Delta$ Mass w. r. t. Bight-Percentile-based-Optimal Mass $(kg) = 19.70$ $21.86$ $22.26$ $\Delta$ Mass w. r. t. Bight-Dercentile-based-Optimal Mass $(kg) = 1.61 lb 10.08 oz$ $116 lb 12.002$ $117 lb 13.89 oz$ Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$				
CDC Percentile-of-Height $\Leftrightarrow$ 46.42 <sup>p</sup> 46.65 <sup>p</sup> 47.02 <sup>p</sup> Modified-Scaled Percentile-of-Height63.01 <sup>p</sup> 63.25 <sup>p</sup> 63.64 <sup>p</sup> Current-Age-Army-Cutoff Height ( $cm$ ) $\Leftrightarrow$ 109.45115.19116.12A Height w. r. t/Current-Age-Army-Cutoff Height ( $cm$ )+3.95+4.23+4.33Current-Age-Mid-Parental Height ( $cm$ ) $=$ 117.64123.90124.92A Height w. r. t. Current-Age-Mid-Parental Height ( $cm$ )-4.24-4.48-4.47Estimated-Adult Height ( $fh$ -in)5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass ( $kg$ ) $\Rightarrow$ 18.3020.1420.74Net Weight ( $b$ -oz)40 $b$ 5.62 oz44 $b$ 6.54 oz45 $b$ b 11.71 ozCDC Percentile-of-Net-Mass $\Leftrightarrow$ 59.10 <sup>p</sup> 58.20 <sup>p</sup> 61.87 <sup>p</sup> Percentile-of-Net-Mass59.10 <sup>p</sup> 58.20 <sup>p</sup> 61.70 <sup>p</sup> BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ 21.5424.0124.46A Mass w. r. t. BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ 22.8952.7353.45Estimated-Adult Weight ( $b$ -oz)116 $b$ 10.08 oz116 $b$ 4.26 oz117 $b$ 13.89 ozAddified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.8				
Modified-Scaled Percentile-of-Height $63.01^{P}$ $63.25^{P}$ $63.64^{P}$ Current-Age-Army-Cutoff Height $(cm) =$ $109.45$ $115.19$ $116.12$ A Height w. r. t/Current-Age-Army-Cutoff Height $(cm)$ $+3.95$ $+4.23$ $+4.33$ Current-Age-Mid-Parental Height $(cm) =$ $117.64$ $123.90$ $124.92$ A Height w. r. t. Current-Age-Mid-Parental Height $(cm)$ $-4.24$ $-4.48$ $-4.47$ Estimated-Adult Height $(fm)$ $162.71$ $162.75$ $162.82$ Estimated-Adult Height $(fm)$ $0$ $0$ $0$ Oscriptive Status (pertaining-to-height) $0$ $0$ $0$ Net Mass $(kg) \Rightarrow$ $18.30$ $20.14$ $20.74$ Net Weight $(lb-oz)$ $40 lb 5.62 oz$ $44 lb 6.54 oz$ $45 lb 11.71 oz$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ $26.81^{P}$ $26.09^{P}$ $29.25^{P}$ Modified-Scaled Percentile-of-Net-Mass $59.10^{P}$ $58.20^{P}$ $61.87^{P}$ Percentile-of-BMI-based-Optimal Mass $(kg) = -3.24$ $-3.87$ $-3.72$ Height-Percentile-based-Optimal Mass $(kg) = 19.70$ $21.86$ $22.26$ AMass w. r. t. BMI-based-Optimal Mass $(kg) = 1.40$ $-1.72$ $-1.52$ Estimated-Adult Waight $(b-oz)$ $16 lb 10.008 oz$ $116 lb 4.26 oz$ $117 lb 13.89 oz$ Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive			-	
Current-Age-Army-Cutoff Height $(cm) \in$ 109.45115.19116.12 $\Delta$ Height w. r. t <sup>7</sup> Current-Age-Army-Cutoff Height $(cm)$ $+3.95$ $+4.23$ $+4.33$ Current-Age-Mid-Parental Height $(cm) \in$ 117.64123.90124.92 $\Delta$ Height w. r. t. Current-Age-Mid-Parental Height $(cm)$ $-4.24$ $-4.48$ $-4.47$ Estimated-Adult Height $(fn-in)$ <b>5</b> ft 4.06 in <b>5</b> ft 4.08 in <b>5</b> ft 4.10 inModified Status (pertaining-to-height)000 <b>Descriptive Status (pertaining-to-height)</b> NormalNormalNormalNet Mass $(kg) \Rightarrow$ 18.3020.1420.74Net Wass $(kg) \Rightarrow$ 26.81°26.09°29.25°Modified-Scaled Percentile-of-Net-Mass59.10°58.20°61.87°Percentile-of-BMI-based-Optimal Mass $(kg) =$ 21.5424.0124.46 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg) =$ 19.7021.8622.26 $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg) =$ 11.70116 bl 0.08 oz117 bl 3.89 ozModified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%0.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult Weight ( $h-oz$ )116 bl 0.0320.07860.0685Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%	č			
∆ Height w. r. t/°Current-Age-Army-Cutoff Height (cm) $+3.95$ $+4.23$ $+4.33$ Current-Age-Mid-Parental Height (cm) $\leftarrow$ 117.64123.90124.92∆ Height w. r. t. Current-Age-Mid-Parental Height (cm) $-4.24$ $-4.48$ $-4.47$ Estimated-Adult Height (cm)162.71162.75162.82Estimated-Adult Height (fr-in)5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass (kg) ⇒18.3020.1420.74Net Weight ( <i>lb-oz</i> )40 <i>lb</i> 5.62 <i>oz</i> 44 <i>lb</i> 6.54 <i>oz</i> 45 <i>lb</i> 11.71 <i>oz</i> CDC Percentile-of-Net-Mass ⇒59.10 <sup>p</sup> 58.20 <sup>p</sup> 61.87 <sup>p</sup> Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43 <sup>p</sup> 67.53 <sup>p</sup> 67.70 <sup>p</sup> BMI-based-Optimal Mass (kg) ⇒21.5424.0124.46A Mass w. r. t. Bidt-based-Optimal Mass (kg) $-3.24$ $-3.87$ $-3.72$ Height-Percentile-based-Optimal Mass (kg) $-3.24$ $-3.87$ $-3.72$ Height-Percentile-based-Optimal Mass (kg) $-1.40$ $-1.72$ $-1.52$ Estimated-Adult Mass (kg) $52.89$ $52.73$ $53.45$ Estimated-Adult Mass (kg) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ </td <td>e e</td> <td></td> <td></td> <td></td>	e e			
Current-Age-Mid-Parental Height $(cm) \leftarrow$ 117.64123.90124.92A Height w. r. t. Current-Age-Mid-Parental Height $(cm)$ -4.24-4.48-4.47Estimated-Adult Height $(cm)$ 162.71162.75162.82Estimated-Adult Height $(fl-in)$ 5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass $(kg) \Rightarrow$ 18.3020.1420.74Net Weight $(lb \cdot oz)$ 40 lb 5.62 oz44 lb 6.54 oz45 lb 11.71 ozCDC Percentile-of-Net-Mass $\Leftrightarrow$ 26.81 P26.09 P29.25 PModified-Scaled Percentile-of-Net-Mass59.10 P58.20 P61.87 PPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43 P67.53 P67.70 PBMI-based-Optimal Mass $(kg) \Rightarrow$ 19.7021.8622.26AMass w. r. t. BMI-based-Optimal Mass $(kg) \Rightarrow$ 19.7021.8622.26AMass w. r. t. Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ 11.60-1.72-1.52Estimated-Adult Mass $(kg)$ 52.8952.7353.45Estimated-Adult Mass $(primal mas - 7.12\% - 7.86\% - 6.85\%$ -6.85\%-6.85\%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg WastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult Status (pertaining-to-mass)1st-Deg WastingWastingEstimated-Adult Status (pertai				
Δ Height w. r. t. Current-Age-Mid-Parental Height (cm)-4.24-4.48-4.47Estimated-Adult Height (cm)162.71162.75162.82Estimated-Adult Height (ft-in)5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass (kg) ⇒18.3020.1420.74Net Weight (lb-oz)40 lb 5.62 oz44 lb 6.54 oz45 lb 11.71 ozCDC Percentile-of-Net-Mass ⇒26.81P26.09P29.25PModified-Scaled Percentile-of-Net-Mass59.10P58.20P61.87PPercentile-of-BMI-based-Optimal Mass (kg)-3.24-3.87-3.72BMI-based-Optimal Mass (kg) ⇒19.7021.8622.26ΔMass w. r. t. BMI-based-Optimal Mass (kg)-1.40-1.72-1.52Estimated-Adult Mass (kg)52.8952.7353.45Estimated-Adult Mass (kg)116 lb 10.08 oz116 lb 4.26 oz117 lb 13.89 ozModified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%-7.86%-6.85%Polar Angle180.00°180.00°180.00°180.00°Extended Nutritional StatusWastingWastingVastingEstimated-Adult Mask (kg/m <sup>2</sup> )19.9819.9120.16Extended Nutritional StatusWastingWastingWasting				
Estimated-Adult Height ( $cm$ )162.71162.75162.82Estimated-Adult Height ( $ft-in$ )5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass ( $kg$ ) $\Rightarrow$ 18.3020.1420.74Net Weight ( $lb-oz$ )40 $lb$ 5.62 $oz$ 44 $lb$ 6.54 $oz$ 45 $lb$ 11.71 $oz$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ 26.81 <sup>P</sup> 26.09 <sup>P</sup> 29.25 <sup>P</sup> Modified-Scaled Percentile-of-Net-Mass59.10 <sup>P</sup> 58.20 <sup>P</sup> 61.87 <sup>P</sup> Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43 <sup>P</sup> 67.53 <sup>P</sup> 67.70 <sup>P</sup> BMI-based-Optimal Mass ( $kg$ ) $-3.24$ $-3.87$ $-3.72$ Height-Percentile-based-Optimal Mass ( $kg$ ) $1.40$ $-1.72$ $-1.52$ Estimated-Adult Mass ( $kg$ ) $52.89$ 52.7353.45Estimated-Adult Weight ( $lb-oz$ )116 $lb$ 10.08 $oz$ 116 $lb$ 4.26 $oz$ 117 $lb$ 13.89 $oz$ Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $0.0786$ 0.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult BMI ( $kg/m^2$ )19.9819.9120.16Estimated-Adult BMI ( $kg/m^2$ )19.9819.9120.16Estimated-Adult BMI ( $kg/m^2$ )19.9819.9120.16				
Estimated-Adult Height (ft-in)5 ft 4.06 in5 ft 4.08 in5 ft 4.10 inModified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass $(kg) \Rightarrow$ 18.3020.1420.74Net Weight (lb-oz)40 lb 5.62 oz44 lb 6.54 oz45 lb 11.71 ozCDC Percentile-of-Net-Mass $\Leftrightarrow$ 26.81 <sup>P</sup> 26.09 <sup>P</sup> 29.25 <sup>P</sup> Modified-Scaled Percentile-of-Net-Mass59.10 <sup>P</sup> 58.20 <sup>P</sup> 61.87 <sup>P</sup> Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43 <sup>P</sup> 67.53 <sup>P</sup> 67.70 <sup>P</sup> BMI-based-Optimal Mass $(kg) \Rightarrow$ 21.5424.0124.46 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg) \Rightarrow$ 19.7021.8622.26 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg) \Rightarrow$ 19.7021.8622.26 $\Delta$ Mass w. r. t. Bight-Percentile-based-Optimal Mass $(kg) =$ 52.8952.7353.45Estimated-Adult Mass $(kg)$ 52.8952.7353.45Estimated-Adult Weight (lb-oz)116 lb 10.08 oz116 lb 4.26 oz117 lb 13.89 ozModified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)-7.12%0.07860.0685Polar Angle180.00°180.00°180.00°180.00°Extended Nutritional StatusWastingWastingWastingEstimated-Adult BMI (kg/m <sup>2</sup> )19.9819.9120.16Estimated-Adult BMI (kg/m <sup>2</sup> )19.9819.9120.16				
Modified Status (pertaining-to-height)000Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass $(kg) \Rightarrow$ 18.3020.1420.74Net Weight (lb-oz)40 lb 5.62 oz44 lb 6.54 oz45 lb 11.71 ozCDC Percentile-of-Net-Mass $\Leftrightarrow$ 26.81°26.09°29.25°Modified-Scaled Percentile-of-Net-Mass59.10°58.20°61.87°Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43°67.53°67.70°BMI-based-Optimal Mass $(kg) \Rightarrow$ 21.5424.0124.46 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg) =$ 19.7021.8622.26 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg) =$ 19.7021.8622.26 $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg) =$ 116 lb 10.08 oz116 lb 4.26 oz117 lb 13.89 ozModified Status (pertaining-to-mass)-7.12%-7.86%-6.85%6.85%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-DegWastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult BMI (kg/m²)19.9819.9120.16Estimated-Adult BMI (kg/m²)19.9819.9120.16Estimated-Adult-Specific BMI0.8320.8290.840	-			
Descriptive Status (pertaining-to-height)NormalNormalNormalNet Mass $(kg) \Rightarrow$ 18.3020.1420.74Net Weight $(lb \cdot oz)$ 40 $lb 5.62 oz$ 44 $lb 6.54 oz$ 45 $lb 11.71 oz$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ 26.81 <sup>p</sup> 26.09 <sup>p</sup> 29.25 <sup>p</sup> Modified-Scaled Percentile-of-Net-Mass59.10 <sup>p</sup> 58.20 <sup>p</sup> 61.87 <sup>p</sup> Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43 <sup>p</sup> 67.53 <sup>p</sup> 67.70 <sup>p</sup> BMI-based-Optimal Mass $(kg) \Rightarrow$ 21.5424.0124.46 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ -3.24-3.87-3.72Height-Percentile-based-Optimal Mass $(kg)$ 19.7021.8622.26 $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ -1.40-1.72-1.52Estimated-Adult Mass $(kg)$ 52.8952.7353.45Estimated-Adult Weight $(lb-oz)$ 116 $lb$ 10.08 $oz$ 117 $lb$ 13.89 $oz$ Modified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)1 <sup>st</sup> -Deg Wasted1 <sup>st</sup> -Deg Wasted1 <sup>st</sup> -Deg WastedAway-from-Normality Index0.007120.07860.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult <i>BMI</i> ( $kg/m^2$ )19.9819.9120.16Estimated-Adult <i>BMI</i> ( $kg/m^2$ )19.9819.9120.16	Victimated A dult Llaight (ff in)			
Net Mass $(kg) \Rightarrow$ 18.3020.1420.74Net Weight $(lb\text{-}oz)$ 40 $lb$ 5.62 $oz$ 44 $lb$ 6.54 $oz$ 45 $lb$ 11.71 $oz$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ 26.81 P26.09 P29.25 PModified-Scaled Percentile-of-Net-Mass59.10 P58.20 P61.87 PPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43 P67.53 P67.70 PBMI-based-Optimal Mass $(kg) \Rightarrow$ 21.5424.0124.46 $\Delta$ Mass $w. r. t. BMI-based-Optimal Mass (kg)-3.24-3.87-3.72Height-Percentile-based-Optimal Mass (kg) \Rightarrow19.7021.8622.26\Delta Mass w. r. t. Beight-Percentile-based-Optimal Mass (kg) = 1.40-1.72-1.52Estimated-Adult Mass (kg)52.8952.7353.45Estimated-Adult Weight (lb\text{-}oz)116 lb 10.08 oz116 lb 4.26 oz117 lb 13.89 ozModified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg Wasted1st-Deg WastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00°180.00°180.00°180.00°Extended Nutritional StatusWastingWastingWastingEstimated-Adult BMI (kg/m^2)19.9819.9120.16Estimated-Adult BMI (kg/m^2)19.9819.9120.16Estimated-Adult Specific BMI0.8320.8290.840$		Ŭ	v	v
Net Weight ( <i>lb-oz</i> ) $40 \ lb 5.62 \ oz$ $44 \ lb 6.54 \ oz$ $45 \ lb 11.71 \ oz$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ $26.81^{P}$ $26.09^{P}$ $29.25^{P}$ Modified-Scaled Percentile-of-Net-Mass $59.10^{P}$ $58.20^{P}$ $61.87^{P}$ Percentile-of- <i>BMI</i> -based-Optimal Mass $\Leftrightarrow$ $67.43^{P}$ $67.53^{P}$ $67.70^{P}$ <i>BMI</i> -based-Optimal Mass $(kg) \Rightarrow$ $21.54$ $24.01$ $24.46$ $\Delta$ Mass w. r. t. <i>BMI</i> -based-Optimal Mass $(kg)$ $-3.24$ $-3.87$ $-3.72$ Height-Percentile-based-Optimal Mass $(kg)$ $-1.40$ $-1.72$ $-1.52$ Estimated-Adult Mass $(kg)$ $52.89$ $52.73$ $53.45$ Estimated-Adult Weight ( <i>lb-oz</i> ) $116 \ lb 10.08 \ oz$ $116 \ lb 4.26 \ oz$ $117 \ lb 13.89 \ oz$ Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $7.12\%$ $0.0786$ $0.0685$ Polar Angle $180.00^{\circ}$ $180.00^{\circ}$ $180.00^{\circ}$ $180.00^{\circ}$ $180.00^{\circ}$ $20.16$ Extended Nutritional Status       Wasting $Wasting$ $Wasting$ $Wasting$	Modified Status (pertaining-to-height)	0	0	0
CDC Percentile-of-Net-Mass $26.81^{P}$ $26.09^{P}$ $29.25^{P}$ Modified-Scaled Percentile-of-Net-Mass $59.10^{P}$ $58.20^{P}$ $61.87^{P}$ Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ $67.43^{P}$ $67.53^{P}$ $67.70^{P}$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $21.54$ $24.01$ $24.46$ $\Delta$ Mass $w. r. t. BMI-based-Optimal Mass (kg)-3.24-3.87-3.72Height-Percentile-based-Optimal Mass (kg) \Rightarrow19.7021.8622.26\Delta Mass w. r. t. Height-Percentile-based-Optimal Mass (kg) = 1.40-1.72-1.52Estimated-Adult Mass (kg)52.8952.7353.45Estimated-Adult Weight (b-oz)116 \ b 10.08 \ oz116 \ b 4.26 \ oz117 \ b 13.89 \ ozModified Status (pertaining-to-mass)-7.12\%-7.86\%-6.85\%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg WastedWastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult BMI (kg/m^2)19.9819.9120.16Estimated-Adult BMI (kg/m^2)19.9819.9120.16$	Modified Status (pertaining-to-height) Descriptive Status (pertaining-to-height)	0 Normal	0 Normal	0 Normal
Modified-Scaled Percentile-of-Net-Mass $59.10^{P}$ $58.20^{P}$ $61.87^{P}$ Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ $67.43^{P}$ $67.53^{P}$ $67.70^{P}$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $21.54$ $24.01$ $24.46$ $\Delta$ Mass $w. r. t. BMI-based-Optimal Mass (kg) \Rightarrow-3.24-3.87-3.72Height-Percentile-based-Optimal Mass (kg) \Rightarrow19.7021.8622.26\Delta Mass w. r. t. Height-Percentile-based-Optimal Mass (kg)-1.40-1.72-1.52Estimated-Adult Mass (kg)52.8952.7353.45Estimated-Adult Weight (lb-oz)116 lb 10.08 oz116 lb 4.26 oz117 lb 13.89 ozModified Status (pertaining-to-mass)-7.12\%-7.86\%-6.85\%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg WastedywastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00^{\circ}180.00^{\circ}180.00^{\circ}180.00^{\circ}Estimated-Adult BMI (kg/m^2)19.9819.9120.16Estimated-Adult BMI (kg/m^2)19.9819.9120.16$	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$	0 Normal 18.30	0 Normal 20.14	0 Normal 20.74
Percentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ 67.43°67.53°67.70°BMI-based-Optimal Mass $(kg) \Rightarrow$ 21.5424.0124.46 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ -3.24-3.87-3.72Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ 19.7021.8622.26 $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ -1.40-1.72-1.52Estimated-Adult Mass $(kg)$ 52.8952.7353.45Estimated-Adult Weight $(lb-oz)$ 116 $lb$ 10.08 $oz$ 116 $lb$ 4.26 $oz$ 117 $lb$ 13.89 $oz$ Modified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg Wasted1st-Deg WastedPolar Angle180.00°180.00°180.00°180.00°180.00°Estimated-Adult BMI (kg/m <sup>2</sup> )19.9819.9120.16Estimated-Adult BMI (kg/m <sup>2</sup> )0.8320.8290.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight ( <i>lb-oz</i> )	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i>	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i>	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i>
BMI-based-Optimal Mass $(kg) \Rightarrow$ 21.54       24.01       24.46 $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ $-3.24$ $-3.87$ $-3.72$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ 19.70       21.86       22.26 $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ $-1.40$ $-1.72$ $-1.52$ Estimated-Adult Mass $(kg)$ 52.89       52.73       53.45         Estimated-Adult Weight ( <i>lb-oz</i> )       116 <i>lb</i> 10.08 <i>oz</i> 116 <i>lb</i> 4.26 <i>oz</i> 117 <i>lb</i> 13.89 <i>oz</i> Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $-7.12\%$ $0.0786$ $0.0685$ Polar Angle       180.00°       180.00°       180.00°       180.00°         Estimated-Adult <i>BMI</i> ( <i>kg/m</i> <sup>2</sup> )       19.98       19.91       20.16         Estimated-Adult <i>BMI</i> ( <i>kg/m</i> <sup>2</sup> )       19.98       19.91       20.16	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight ( <i>lb-oz</i> )	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i>	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i>	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i>
∆ Mass w. r. t. BMI-based-Optimal Mass (kg)-3.24-3.87-3.72Height-Percentile-based-Optimal Mass (kg) ⇒19.7021.8622.26∆ Mass w. r. t. Height-Percentile-based-Optimal Mass (kg)-1.40-1.72-1.52Estimated-Adult Mass (kg)52.8952.7353.45Estimated-Adult Weight (lb-oz)116 lb 10.08 oz116 lb 4.26 oz117 lb 13.89 ozModified Status (pertaining-to-mass)-7.12%-7.86%-6.85%Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg WastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00°180.00°180.00°180.00°Estimated-Adult BMI (kg/m²)19.9819.9120.16Estimated-Adult-Specific BMI0.8320.8290.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb\text{-}oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup>	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup>	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup>
Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ 19.7021.8622.26 $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ $-1.40$ $-1.72$ $-1.52$ Estimated-Adult Mass $(kg)$ $52.89$ $52.73$ $53.45$ Estimated-Adult Weight $(lb-oz)$ $116 \ lb \ 10.08 \ oz$ $116 \ lb \ 4.26 \ oz$ $117 \ lb \ 13.89 \ oz$ Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $1^{st}$ -Deg Wasted $1^{st}$ -Deg Wasted $1^{st}$ -Deg WastedAway-from-Normality Index $0.0712$ $0.0786$ $0.0685$ Polar Angle $180.00^{\circ}$ $180.00^{\circ}$ $180.00^{\circ}$ Estimated-Adult BMI $(kg/m^2)$ $19.98$ $19.91$ $20.16$ Estimated-Adult-Specific BMI $0.832$ $0.829$ $0.840$	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup>	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup>	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup>
$\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass (kg)       -1.40       -1.72       -1.52         Estimated-Adult Mass (kg)       52.89       52.73       53.45         Estimated-Adult Weight (lb-oz)       116 lb 10.08 oz       116 lb 4.26 oz       117 lb 13.89 oz         Modified Status (pertaining-to-mass)       -7.12%       -7.86%       -6.85%         Descriptive Status (pertaining-to-mass)       1st-Deg Wasted       1st-Deg Wasted       1st-Deg Wasted         Away-from-Normality Index       0.0712       0.0786       0.0685         Polar Angle       180.00°       180.00°       180.00°         Estimated-Adult BMI (kg/m²)       19.98       19.91       20.16         Estimated-Adult BMI (kg/m²)       0.832       0.829       0.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i> 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46
Estimated-Adult Mass ( $kg$ )       52.89       52.73       53.45         Estimated-Adult Weight ( $lb$ - $oz$ )       116 $lb$ 10.08 $oz$ 116 $lb$ 4.26 $oz$ 117 $lb$ 13.89 $oz$ Modified Status (pertaining-to-mass) $-7.12\%$ $-7.86\%$ $-6.85\%$ Descriptive Status (pertaining-to-mass) $1^{st}$ -Deg Wasted $1^{st}$ -Deg Wasted $1^{st}$ -Deg Wasted         Away-from-Normality Index $0.0712$ $0.0786$ $0.0685$ Polar Angle       180.00°       180.00°       180.00°         Extended Nutritional Status       Wasting       Wasting       Wasting         Estimated-Adult BMI ( $kg/m^2$ )       19.98       19.91       20.16         Estimated-Adult-Specific BMI $0.832$ $0.829$ $0.840$	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i> 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72
Estimated-Adult Weight ( <i>lb-oz</i> )       116 <i>lb</i> 10.08 <i>oz</i> 116 <i>lb</i> 4.26 <i>oz</i> 117 <i>lb</i> 13.89 <i>oz</i> Modified Status (pertaining-to-mass)       -7.12%       -7.86%       -6.85%         Descriptive Status (pertaining-to-mass)       1st-Deg Wasted       1st-Deg Wasted       1st-Deg Wasted         Away-from-Normality Index       0.0712       0.0786       0.0685         Polar Angle       180.00°       180.00°       180.00°         Extended Nutritional Status       Wasting       Wasting         Estimated-Adult <i>BMI (kg/m²</i> )       19.98       19.91       20.16         Estimated-Adult-Specific <i>BMI</i> 0.832       0.829       0.840	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$ Net Weight $(lb$ - $oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of- $BMI$ -based-Optimal Mass $\Leftrightarrow$ $BMI$ -based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass $w. r. t. BMI$ -based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i> 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>P</sup> 58.20 <sup>P</sup> 67.53 <sup>P</sup> 24.01 -3.87 21.86	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>P</sup> 61.87 <sup>P</sup> 67.70 <sup>P</sup> 24.46 -3.72 22.26
Modified Status (pertaining-to-mass)         -7.12%         -7.86%         -6.85%           Descriptive Status (pertaining-to-mass)         1 <sup>st</sup> -Deg Wasted         1 <sup>st</sup> -Deg Wasted         1 <sup>st</sup> -Deg Wasted           Away-from-Normality Index         0.0712         0.0786         0.0685           Polar Angle         180.00°         180.00°         180.00°           Extended Nutritional Status         Wasting         Wasting         Uasting           Estimated-Adult BMI (kg/m²)         19.98         19.91         20.16           Estimated-Adult-Specific BMI         0.832         0.829         0.840	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i> 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>P</sup> 61.87 <sup>P</sup> 67.70 <sup>P</sup> 24.46 -3.72 22.26 -1.52
Descriptive Status (pertaining-to-mass)1st-Deg Wasted1st-Deg Wasted1st-Deg WastedAway-from-Normality Index0.07120.07860.0685Polar Angle180.00°180.00°180.00°Extended Nutritional StatusWastingWastingEstimated-Adult BMI (kg/m²)19.9819.9120.16Estimated-Adult-Specific BMI0.8320.8290.840	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$ Net Weight $(lb \text{-} oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45
Away-from-Normality Index         0.0712         0.0786         0.0685           Polar Angle         180.00°         180.00°         180.00°           Extended Nutritional Status         Wasting         Wasting         Wasting           Estimated-Adult BMI (kg/m²)         19.98         19.91         20.16           Estimated-Adult-Specific BMI         0.832         0.829         0.840	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i>	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i>
Away-from-Normality Index         0.0712         0.0786         0.0685           Polar Angle         180.00°         180.00°         180.00°           Extended Nutritional Status         Wasting         Wasting         Wasting           Estimated-Adult BMI (kg/m²)         19.98         19.91         20.16           Estimated-Adult-Specific BMI         0.832         0.829         0.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb - oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz -7.12%	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86%	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85%
Polar Angle         180.00°         180.00°         180.00°           Extended Nutritional Status         Wasting         Wasting         Wasting           Estimated-Adult BMI (kg/m²)         19.98         19.91         20.16           Estimated-Adult-Specific BMI         0.832         0.829         0.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb - oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz -7.12%	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86%	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85% <b>1st-Deg</b>
Extended Nutritional StatusWastingWastingEstimated-Adult BMI (kg/m²)19.9819.9120.16Estimated-Adult-Specific BMI0.8320.8290.840	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$ Net Weight $(lb - oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb - oz)$ Modified Status (pertaining-to-mass) <b>Descriptive Status (pertaining-to-mass)</b>	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz -7.12% 1st-Deg Wasted	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86% 1st-Deg Wasted	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>P</sup> 61.87 <sup>P</sup> 67.70 <sup>P</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85% <b>1st-Deg</b> Wasted
Estimated-Adult BMI (kg/m <sup>2</sup> )         19.98         19.91         20.16           Estimated-Adult-Specific BMI         0.832         0.829         0.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb  ext{-} oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality Index	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz -7.12% 1st-Deg Wasted 0.0712	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86% <b>1st-Deg Wasted</b> 0.0786	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85% <b>1st-Deg</b> Wasted 0.0685
Estimated-Adult-Specific BMI         0.832         0.829         0.840	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality IndexPolar Angle	0 Normal 18.30 40 <i>lb</i> 5.62 <i>oz</i> 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 <i>lb</i> 10.08 <i>oz</i> -7.12% 1 <sup>st</sup> -Deg Wasted 0.0712 180.00°	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86% <b>1</b> <sup>st</sup> -Deg Wasted 0.0786 180.00°	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85% 1st-Deg Wasted 0.0685 180.00°
Build Medium Medium Medium	Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight $(lb-oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality IndexPolar AngleExtended Nutritional Status	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz -7.12% 1 <sup>st</sup> -Deg Wasted 0.0712 180.00° Wasting	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86% <b>1</b> <sup>st</sup> -Deg Wasted 0.0786 180.00° Wasting	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>p</sup> 61.87 <sup>p</sup> 67.70 <sup>p</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85% 1st-Deg Wasted 0.0685 180.00° Wasting
	Modified Status (pertaining-to-height) <b>Descriptive Status (pertaining-to-height)</b> Net Mass $(kg) \Rightarrow$ Net Weight $(lb - oz)$ CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality IndexPolar AngleExtended Nutritional StatusEstimated-Adult BMI $(kg/m^2)$	0 Normal 18.30 40 lb 5.62 oz 26.81 <sup>P</sup> 59.10 <sup>P</sup> 67.43 <sup>P</sup> 21.54 -3.24 19.70 -1.40 52.89 116 lb 10.08 oz -7.12% 1 <sup>st</sup> -Deg Wasted 0.0712 180.00° Wasting 19.98	0 Normal 20.14 44 <i>lb</i> 6.54 <i>oz</i> 26.09 <sup>p</sup> 58.20 <sup>p</sup> 67.53 <sup>p</sup> 24.01 -3.87 21.86 -1.72 52.73 116 <i>lb</i> 4.26 <i>oz</i> -7.86% 1 <sup>st</sup> -Deg Wasted 0.0786 180.00° Wasting 19.91	0 Normal 20.74 45 <i>lb</i> 11.71 <i>oz</i> 29.25 <sup>P</sup> 61.87 <sup>P</sup> 67.70 <sup>P</sup> 24.46 -3.72 22.26 -1.52 53.45 117 <i>lb</i> 13.89 <i>oz</i> -6.85% 1st-Deg Wasted 0.0685 180.00° Wasting 20.16

<sup>&</sup>lt;sup>®</sup>Growth-and-Obesity Vector-Roadmap 2.6 proposed in Kamal, M. J. Ansari, Sarwar, S. A. Ansari, Naz, Jamil 2021) — see Additional Files 2 and 3

<sup>v</sup>Tanner 1 indicates that the child is prepubertal (Table 4 of Kamal, Azeemi, Khan, 2017) <sup> $\gamma$ </sup>w. r. t. stands for \_with respect to<sup> $\circ$ </sup>

Checkup	3 <sup>rd</sup>	$4^{th}$
Age Range	Under 9	Under 11
Photograph		
Scanned Signatures	ZHZ	ZHZ
Class	II	IV
Date of Checkup (year-month-day)	2013-06-02	2014-11-23
Age (year-month-day)	07-11-16	09-05-07
Age (decimal year), A	7.96	9.44
Puberty Rating	Tanner 1	Tanner 1
Height, h (cm)	$117.84^{\Omega}$	136.56
Height $(ft-in) \Leftarrow$	3 ft 10.39 in	4 ft 5.76 in
CDC Percentile-of-Height $\Leftrightarrow$	4.54 <sup>P</sup>	58.22 <sup>P</sup>
Modified-Scaled Percentile-of-Height	7.44 <sup>P</sup>	74.45 <sup>P</sup>
Current-Age-Army-Cutoff Height $(cm) \Leftarrow$	122.27	129.51
$\Delta$ Height w. r. t. Current-Age-Army-Cutoff Height (cm)	-4.43	+7.05
Current-Age-Mid-Parental Height ( $cm$ ) $\Leftarrow$	131.65	139.81
$\Delta$ Height w. r. t. Current-Mid-Parental Height (cm)	-13.81	-3.25
		0.20
Estimated-Adult Height ( <i>cm</i> )	152.30	164.77
Estimated-Adult Height ( <i>cm</i> ) Estimated-Adult Height ( <i>ft–in</i> )	152.30 4 ft 11.96 in	164.77 5 ft 4.87 in
Estimated-Adult Height (ft-in)	4 ft 11.96 in	5 ft 4.87 in
Estimated-Adult Height ( <i>ft-in</i> ) Modified Status (pertaining-to-height)	<b>4 ft 11.96 in</b> −3.58%	<b>5 ft 4.87 in</b> 0
Estimated-Adult Height ( <i>ft-in</i> ) Modified Status (pertaining-to-height) Descriptive Status (pertaining-to-height)	4 ft 11.96 in           -3.58%           1st-Deg Stunted	<b>5</b> <i>ft</i> <b>4.87</b> <i>in</i> 0 <b>Normal</b>
Estimated-Adult Height ( $ft$ -in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$	4 ft 11.96 in −3.58% 1st-Deg Stunted 25.12	5 ft 4.87 in 0 Normal 33.06 72 lb 14.36 oz
Estimated-Adult Height ( $ft$ -in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$	4 ft 11.96 in -3.58% 1st-Deg Stunted 25.12 55 lb 6.23 oz 46.25 <sup>p</sup>	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup>
Estimated-Adult Height ( $ft$ -in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-Mass	4 ft 11.96 in -3.58% 1st-Deg Stunted 25.12 55 lb 6.23 oz 46.25 <sup>p</sup> 77.44 <sup>p</sup>	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup>
Estimated-Adult Height ( $ft$ -in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$	4 ft 11.96 in −3.58% 1st-Deg Stunted 25.12 55 lb 6.23 oz 46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup>	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>P</sup> 88.26 <sup>P</sup> 72.73 <sup>P</sup>
Estimated-Adult Height ( $ft$ -in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$	<b>4 ft 11.96 in</b> -3.58% <b>1st-Deg Stunted</b> 25.12 55 <i>lb</i> 6.23 <i>oz</i> 46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of- $BMI$ -based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass $w. r. t. BMI$ -based-Optimal Mass ( $kg$ )	4 ft 11.96 in         -3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>p</sup> 77.44 <sup>p</sup> 38.89 <sup>p</sup> 24.35         +0.77	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71           -1.65
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass $w. r. t. BMI$ -based-Optimal Mass ( $kg$ )Height-Percentile-based-Optimal Mass ( $kg$ ) $\Rightarrow$	4 ft 11,96 in -3.58% 1st-Deg Stunted 25.12 55 lb 6.23 oz 46.25 <sup>p</sup> 77.44 <sup>p</sup> 38.89 <sup>p</sup> 24.35 +0.77 19.85	5 ft 4.87 in         0         Normal         33.06         72 lb 14.36 oz         63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71         -1.65         32.12
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass $w. r. t. BMI$ -based-Optimal Mass ( $kg$ )Height-Percentile-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass $w. r. t.$ Height-Percentile-based-Optimal Mass ( $kg$ )	4 ft 11.96 in -3.58% 1st-Deg Stunted 25.12 55 lb 6.23 oz 46.25 <sup>p</sup> 77.44 <sup>p</sup> 38.89 <sup>p</sup> 24.35 +0.77 19.85 +5.27	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71           -1.65           32.12           +0.94
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight (lb-oz)CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$	4 ft 11.96 in -3.58% 1st-Deg Stunted 25.12 55 lb 6.23 oz 46.25 <sup>p</sup> 77.44 <sup>p</sup> 38.89 <sup>p</sup> 24.35 +0.77 19.85 +5.27 57.36	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71           -1.65           32.12           +0.94           62.34
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass $w. r. t. BMI-based-Optimal Mass (kg)Height-Percentile-based-Optimal Mass (kg) \Rightarrow\Delta Mass w. r. t. Height-Percentile-based-Optimal Mass (kg)Estimated-Adult Mass (kg)Estimated-Adult Weight (lb-oz)$	4 ft 11.96 in           -3.58%           1st-Deg Stunted           25.12           55 lb 6.23 oz           46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35           +0.77           19.85           +5.27           57.36           126 lb 7.56 oz	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71           -1.65           32.12           +0.94           62.34           137 lb 7.37 oz
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass ( $kg$ )Height-Percentile-based-Optimal Mass ( $kg$ )Estimated-Adult Mass ( $kg$ )Estimated-Adult Mass ( $kg$ )Estimated-Adult Weight ( $lb$ - $oz$ )Modified Status (pertaining-to-mass)	4 ft 11.96 in           -3.58%           1st-Deg Stunted           25.12           55 lb 6.23 oz           46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35           +0.77           19.85           +5.27           57.36           126 lb 7.56 oz           +3.16%	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>P</sup> 88.26 <sup>P</sup> 72.73 <sup>P</sup> 34.71           -1.65           32.12           +0.94           62.34           137 lb 7.37 oz           0
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass ( $kg$ )Height-Percentile-based-Optimal Mass ( $kg$ )Estimated-Adult Mass ( $kg$ )Estimated-Adult Mass ( $kg$ )Estimated-Adult Weight ( $lb$ - $oz$ )Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)	4 ft 11.96 in         -3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35         +0.77         19.85         +5.27         57.36         126 lb 7.56 oz         +3.16%         1st-Deg Obese	5 ft 4.87 in           0           Normal           33.06           72 lb 14.36 oz           63.50 <sup>p</sup> 88.26 <sup>p</sup> 72.73 <sup>p</sup> 34.71           -1.65           32.12           +0.94           62.34           137 lb 7.37 oz
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass ( $kg$ ) $\Rightarrow$ Net Weight ( $lb$ - $oz$ )CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of- $BMI$ -based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass ( $kg$ ) $\Rightarrow$ $\Delta$ Mass $w. r. t. BMI$ -based-Optimal Mass ( $kg$ )Height-Percentile-based-Optimal Mass ( $kg$ )Estimated-Adult Mass ( $kg$ )Estimated-Adult Mass ( $kg$ )Estimated-Adult Weight ( $lb$ - $oz$ )Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality Index	4 ft 11.96 in         -3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>p</sup> 77.44 <sup>p</sup> 38.89 <sup>p</sup> 24.35         +0.77         19.85         +5.27         57.36         126 lb 7.56 oz         +3.16%         1st-Deg Obese         0.0478	5 ft 4.87 in           0           Normal $33.06$ $72 lb$ 14.36 $oz$ $63.50^{P}$ $88.26^{P}$ $72.73^{P}$ $34.71$ $-1.65$ $32.12$ $+0.94$ $62.34$ $137 lb$ 7.37 $oz$ 0           Normal           0
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight (lb-oz)CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight (lb-oz)Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality Index Polar Angle	4 ft 11.96 in         -3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>p</sup> 77.44 <sup>p</sup> 38.89 <sup>p</sup> 24.35         +0.77         19.85         +5.27         57.36         126 lb 7.56 oz         +3.16%         1st-Deg Obese         0.0478         311.49°	5 ft 4.87 in         0         Normal         33.06         72 lb 14.36 oz         63.50 <sup>P</sup> 88.26 <sup>P</sup> 72.73 <sup>P</sup> 34.71         -1.65         32.12         +0.94         62.34         137 lb 7.37 oz         0         Normal         0         Indeterminate
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight (lb-oz)CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality Index Polar AngleExtended Nutritional Status	4 ft 11.96 in         −3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35         +0.77         19.85         +5.27         57.36         126 lb 7.56 oz         +3.16%         1st-Deg Obese         0.0478         311.49°	5 ft 4.87 in         0         Normal         33.06         72 lb 14.36 oz         63.50 <sup>P</sup> 88.26 <sup>P</sup> 72.73 <sup>P</sup> 34.71         -1.65         32.12         +0.94         62.34         137 lb 7.37 oz         0         Normal         0         Indeterminate         Normality
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight (lb-oz)CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality Index Polar AngleEstimated-Adult BMI $(kg/m^2)$	4 ft 11.96 in         −3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35         +0.77         19.85         +5.27         57.36         126 lb 7.56 oz         +3.16%         1st-Deg Obese         0.0478         311.49°         24.73	5 ft 4.87 in         0         Normal         33.06         72 lb 14.36 oz         63.50 <sup>P</sup> 88.26 <sup>P</sup> 72.73 <sup>P</sup> 34.71         -1.65         32.12         +0.94         62.34         137 lb 7.37 oz         0         Normal         0         Indeterminate         Normality         22.96
Estimated-Adult Height (ft-in)Modified Status (pertaining-to-height)Descriptive Status (pertaining-to-height)Net Mass $(kg) \Rightarrow$ Net Weight (lb-oz)CDC Percentile-of-Net-Mass $\Leftrightarrow$ Modified-Scaled Percentile-of-Net-MassPercentile-of-BMI-based-Optimal-Mass $\Leftrightarrow$ BMI-based-Optimal Mass $(kg) \Rightarrow$ $\Delta$ Mass w. r. t. BMI-based-Optimal Mass $(kg)$ Height-Percentile-based-Optimal Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Mass $(kg)$ Estimated-Adult Weight $(lb-oz)$ Modified Status (pertaining-to-mass)Descriptive Status (pertaining-to-mass)Away-from-Normality Index Polar AngleExtended Nutritional Status	4 ft 11.96 in         −3.58%         1st-Deg Stunted         25.12         55 lb 6.23 oz         46.25 <sup>P</sup> 77.44 <sup>P</sup> 38.89 <sup>P</sup> 24.35         +0.77         19.85         +5.27         57.36         126 lb 7.56 oz         +3.16%         1st-Deg Obese         0.0478         311.49°	5 ft 4.87 in         0         Normal         33.06         72 lb 14.36 oz         63.50 <sup>P</sup> 88.26 <sup>P</sup> 72.73 <sup>P</sup> 34.71         -1.65         32.12         +0.94         62.34         137 lb 7.37 oz         0         Normal         0         Indeterminate         Normality

Table 2b. Growth-and-Obesity Vector-Roadmap 2.6 of ZHZ — 4<sup>th</sup> and 5<sup>th</sup> checkups

This index is determined by mathematically combining height-gain-target-achievement index and massmanagement-target-achievement index with maintenance of good posture and balanced gait as well as emotional quotient. The summer camp should shape the players in such a way that they go back to their countries of residence with improved posture, balanced gait, weight maintained according to height, height pickup at such a rate to achieve minimum standards setup for induction in the armed forces

Table 2c. Height-gain-target-achievement index, h <sub>C</sub> , and mass-management-target-
achievement index, $\mu_{\rm C}$ , of ZHZ at her last (fifth) checkup

At the 4 <sup>th</sup> Checkup	Height		Mass (Weight)	
(November 23, 2014)	ст	ft-in	kg	lb-oz
Measured Values	136.56	4 ft 5.56 in	33.06	72 lb 14.36 oz
Computed Targets	138.75	4 ft 6.62 in	34.91 - 35.31	72 lb 15.69 oz - 77 lb 13.81 oz
Target-Achievement Index	98.42 %		94.70 % ↓	
Qualitative	h <sub>C</sub> under-achieved		$\mu_{\rm C}$ under-achieved (lesser mass outside the normal range	

of their respective countries of residence as well as optimal fitness level. Remember that such impressive personalities of these players should help them secure top positions in civilian and military occupations of their home countries, putting them in situations to make critical, far-reaching and long- lasting decisions for the safety, the security and the human development of their countrymen and their neighboring countries.

# Discipline

Discipline measures proposed for sport academies (Kamal, Khan, 2020b) are, also, applicable to summer camps. These include disallowing tattoos (for players, coaches and administrators), not permitting street clothing and shoes (additional benefit: no import of controlled substances and harmful objects) and prohibiting cameras (still/video/smart-mobile). The players are required to deposit their simple mobiles along with street clothing and shoes in summer-camp lockers upon arrival. Further, the players cannot bring in watches, chains, bracelets or other jewelry to summer-camp site. In order to discourage theft of money, players are encouraged not to bring any money to the campsite. They should have credit established, which could be accessed through face recognition and thumb impression.

# Safety

There is a greater frequency of accidents in under-11 players, which may become the major cause of mortality and morbidity, in particular, increased head-injury risk. In this regard, the aggressive nature of male players render them more vulnerable to misadventures as compared to female players. Hence, there should be session on safety procedures combined with safety drill at the start of the summer camp outlining clear-cut policies on how to handle minor and major mishaps, natural (*e. g.*, earthquake, flood, landslide) and man-inflicted (*e. g.*, arson) disasters (Kamal, Khan, 2014).

# Security

Security screening has taken center-stage in the operation of regional summer camps with players from many different countries in the wake of shooting spree by gun-holding individuals in Gymnasia No. 175,

Tanget Date	Height Target		Range of Mass (Weight) Targets	
Target Date	ст	ft-in	kg	lb-oz
November 23, 2014 (reference values)	136.56	4 ft 19.97 in	33.06	72 lb 14.36 oz
December 23, 2014 (1 <sup>st</sup> month)	137.84	4 ft 10.18 in	34.03-34.12	75 <i>lb</i> 0.69 <i>oz</i> - 75 <i>lb</i> 3.90 <i>oz</i>
January 23, 2015 (2 <sup>nd</sup> month)	139.04	4 ft 10.38 in	34.97-35.14	77 lb 1.76 oz - 77 lb 7.86 oz
February 23, 2015 (3 <sup>rd</sup> month)	140.10	4 ft 10.58 in	35.82-36.06	78 lb 15.63 oz - 79 lb 8.12 oz
March 23, 2015 (4 <sup>th</sup> month)	140.94	4 ft 10.78 in	36.50-36.88	80 lb 7.69 oz - 81 lb 4.97 oz
April 23, 2015 (5 <sup>th</sup> month)	141.74	4 ft 10.99 in	37.20-37.85	82 lb 0.50 oz - 83 lb 7.27 oz
May 23, 2015 (6 <sup>th</sup> month)	142.45	4 ft 11.19 in	37.87-38.56	83 lb 8.07 oz - 85 lb 0.54 oz

 Table 2d. Month-wise mass and weight target ranges as well as height targets for ZHZ based on her last (fifth) checkup

**Table 2e.** Lifestyle adjustment, diet and exercise plans prepared for ZHZ to help her achieve targets recommended in Table 2d

	Height Management	Mass (Weight) Management
Lifestyle Adjustment	2-3-hour family time on a daily basis, with cell p tennis; stroll in the park; free play in playground; cy IU) through 10-15-minute guarded-graduated sun-e 6f lists safe periods of exposure); facing away from (UV stands for ultraviolet), hair spread out and op infection; 3-4-hour play in fresh air dressed minim bathing; 8-hour, uninterrupted night-time sound sl pajama-shorts only (briefs/panties style, loose-fitting slow-stoke back massage to improve quality and unbraided and opened up, for safety reasons all hai of milk consumed before bedtime; teeth brushed 5 dinner each as well as before going to bed; chocolates/cookies/juices/milk; 10-minute day-drea floor/bed, 10-minute leisure walk with parents insis time (one hour computer/video games; one hour TV back straight as well as normal to thighs); 2-strap s on a shoulder (unnecessary books, copies and journa (disinfectant powder to be applied to dry body parts a pure leather mocation shoes with foot support — tig flops) should not be worn, slippers got wet during a ones to be put on carefully dried and wiped feet, in drenched in rain, etc.); absolutely NO high heels —	hones and tablets kept away (conversation; table cling); recommended daily dose of vitamin D (600 xposure (early morning or late afternoon — Table sun and eyes protected through UV-cutoff glasses bened up and bare (dried) feet (to prevent fungus ially; hair and body massage with olive oil before leep (range 6-10 <i>hours</i> ) dressed in fire- resistant g clothing), unclothed from the waist up; 3-minute, quantity of sleep — before retiring to bed hair ir accessories, jewelry, watch, belt removed; glass 5 times — upon rising, after breakfast, lunch and additional brushing after consuming candies/ aming after lunch with eyes closed stretched on de home lawn/corridor, maximum 2- <i>hour</i> screen 7/DVD — computer monitor at eye level, neck and chool bags properly worn on back with each strap lls taken out); pure cotton undergarments and socks and wiped feet before putting on underwear/socks), ht undergarments, clothes, shoes and slippers (flip- ablution should be replaced immediately with dry a particular, between toes (same goes with clothes
	3 relaxed ( <i>wait for food, not let the food wait for y</i> eat when very hungry, abstain when some apportable/dinner spread till the food is taken away — protocols had been present for the last 1400 years in should include fresh fruits and green vegetables; mi desserts; 10-12 glasses of water daily — NO carbor To gain height, diet plan should include calcium-, protein- and fiber-rich diet (chicken, fish, fresh fruit and milk)	etite remains, respect the food, <i>stay on dinner</i> it would be of interest to note that some of these in the religion of Islam) and balanced meals, which nimize consumption of bakery items, sweets and nated drinks, except one 250- <i>ml</i> bottle in a <i>month</i> To put on mass (weight), diet plan should
Exercise Plans	Exercises for 5 <i>minutes</i> each after waking up, at the bending on sides, focusing eyes far away and m computer work/writing, stretching, touching toes wit right, up, down), light exercises during TV/DVD centered gymnastic exercises, preceded by warm-up hour indoors and half-an-hour outdoors in exercise- 2); table tennis; jogging; cycling To pick up height, child should perform light- stretching exercises (bar hanging, mild-stretching, summersault, cartwheel)	oving eyeballs, moving fingers and wrists after ithout flexing knees, exercising neck muscles (left, watching; structured, guarded-graduated family- p and followed by cool-down routines — half-an- friendly clothing and footwear (Tables AF-1, AF-

Kazan, Tataristan, Russia (May 11, 2021); Marjory Stoneman Douglas High School, Parkland, Florida, United States (February 14, 2018) and Sandy Hook Elementary School, Newton, Connecticut, United States (December 14, 2012); car bomb and IED explosion in the Syed-ush-Shuhadaa School, Dasté Barshi, Kabul, Afghanistan (May 8, 2021); terrorist attack in the Army Public School and College, Peshawar, Khyber Pakhtunkhwa, Pakistan (December 16, 2014) as well as terrorist take over in School No. 1, Baslan, North Ossetia-Alania, Russia (September 1-3, 2004).

A combination of behavioral science, intelligence and screening, security procedures must be courteous and preserve human dignity. Eye-movement detection, hidden cameras and unusual motion-

detection devices — result of all of these different techniques assembled through appropriate algorithms and examined remotely by security experts and psychologists, should ensure reduction of such incidents (Kamal, Khan, 2018). Persons and belongings of players, parents, all visitors, delivery and maintenance personnel should be checked for weapons and pointed/sharp objects using pat downs, canine teams, observers and emitted-IR radiation (Kamal, 2010*b*); sending carryon baggage through X- ray machine — shoes, clothes and other personal items carried close to body should not be X rayed. The authors expressed serious concerns regarding active-scanning devices, walk-through (metal- detecting, fullbody-scanning) gates, electronic-handheld devices or such other sensors on under-11 players, as they may effect brain, heart and spinal column as well as increase risk of cancer in younger players, who have fragile bone marrow (Kamal, Khan, 2014). Further, radiation dose may cause any wound or infection to get worse. Exposure of players' bodies to electric and magnetic fields as well as X-ray and millimeterwave radiation should be avoided at all costs, since magnetic fields of players' brains are of the order of one part in  $10^{13}$  *Tesla* (Kamal, 2021).

Summer-camp building should be designed in such a way to handle the rare event of a hostile takeover (Kamal, Khan, Aslam, 2020). In addition, separate walking as well as biking and motor vehicle pathways (as part of the green-environment initiative as well as encouraging walking and biking to overcome obesity) should prevent use of cars and trucks as killing machines. Some prominent examples are use of truck to kill 4 members of Salman Afzaal's family in London, Ontario, Canada (June 6, 2021); car ramming into the carnival crowd in Volkmarsen, Germany, injuring 30 people (February 24, 2020); 32-*year* old Heather Heyer overrun by a car while crossing street in Charlottesville, Virginia, United States (August 12, 2017) and murdering of 68 pedestrians (434 wounded) during Bastille Day fireworks in Promenade des Anglais in Nice, France by a lorry driven in the crowd (July 14, 2016).

# Organization

Sport activities are conducted on 3 days (Figure 6). Hairstyle, clothing and footwear for athletics, squash and cricket are derived from the ones proposed for gymnastics, tennis and football, respectively, where are described in detail elsewhere (Kamal, Khan, 2015; 2020*b*). Additional File 2 lists hairstyle, clothing and footwear for sport and cultural activities proposed for the summer camp, prepared according

Boys: Tuesday, Thursday, Saturday • Girls: Monday, Wednesday, Friday Health and Safety Inspection (start of the day): At the start of each day, players are subjected to health and safety inspections, undressed to short underpants, followed by changing into kit for the activity to be engaged in the morning shift; any cut/bruise is recorded as well as players' time of arrival entered in summer camp logbook and players' diaries — in case of unauthorized absence, parent/hostel matron should be, immediately, called

	Athletics	Squash	Cricket
<b>Morning Shift</b> (6: 00 <i>a. m.</i> – 10: 00 <i>a. m.</i> )		Big Build	Medium Build
<b>Day Shift</b> (10: 15 <i>a. m.</i> – 2: 15 <i>p. m.</i> )		Small Build	Big Build
<b>Evening Shift</b> (2: 30 <i>p. m.</i> – 6: 30 <i>p. m.</i> )		Medium Build	Small Build

Heath and Safety Inspection (end of the day): Before the players are allowed to go home/hostel, they receive another stripped inspection, any cut/bruise is recorded as well as players' time of departure entered in summer camp logbook and players' diaries

Figure 6. Scheduling of different sport activities to keep participants engaged throughout the day

Practice Session I	Hairstyle, footwear and clothing as in Tables AFII-1-4 (Additional File 2); players
40 minutes	should be fully hydrated with ORS water before and after practice session <sup><math>\lambda</math></sup>
Body-Massage Session I	With oil; players remove shoes, socks and retain only short underpants <sup>o</sup> — body
05 minutes	wiped with paper towel at the end
Coaching-Lecture Session	Clothing and boys' hairstyle as in Tables AFII-1-4; (girls) hair-bands removed by
25 minutes	cricket and squash players; ponies by athletes <sup>¶</sup> (see coaching tutorial for intake) <sup>§</sup>
Practice Session II	
40 minutes	See practice session I
Body-Massage Session II	
05 minutes	See body-massage session I
Coaching-Tutorial Session	See coaching-lecture session; fruits and juices are served during coaching lecture
25 minutes	and tutorial <sup><math>\mu</math></sup>
Practice Session III	Cas muscling associan I
40 minutes	See practice session I
Body-Massage Session III	Carlada marina I
05 minutes	See body-massage session I
Presentation Session	Hairstyle, footwear and clothing as in Tables AFII-1 and AFII-5; breakfast (fore-
25 minutes	noon shift), lunch (noon shift) or snacks (afternoon shift) during presentations#
Sleep Session	3-minute, slow-stoke back massage to improve quality and quantity of sleep; girls
45 minutes	should have hair opened up; hair bands and ponies removed*

 $^{\lambda}$ Video recordings of all 3 practice sessions for replay in slow motion (during tutorials) for analysis and teaching purposes; dotted-rasterstereography and edge-based algorithms are combined with video analysis to visualize fine movements in 3 dimensions

phalf pants/stockings/training leotards (if worn) must be removed and replaced by briefs/panties

<sup>¶</sup>remain barefoot during coaching lecture and tutorial

<sup>§</sup>history of the sport with introduction of prominent players (active and retired) and geography (countries where sport is dominant; famous clubs/teams); videos and demonstrations of specialized moves to be taught on that day

<sup>µ</sup>Replay of video recording of the first and the second practice sessions; mistakes committed are discussed and correct moves demonstrated

<sup>#</sup>breakfast, lunch or snacks served with proper cutlery to teach table manners, followed by brushing of teeth

\*girls, till the age of 6+ *years*, and all boys change to fire-resistant pajama-shorts, stripped-to-waist; girls, 7 *years* and above, change into fire-resistant pajamas; resting area should have subdued lighting and panels put facing doors so that players' sleep is not interrupted by bright light entering the room, when a supervisor or a late arrival enters the area — video and audio remote monitoring of sleeping quarters to check mischief/horseplay by players

Figure 7. Summer-camp routine for each sport activity as per schedule

to the guidelines given in American Academy of Pediatrics (1982; 2000). The sport activities (Figure 7) are complemented by cultural activities on the other 3 days (Figure 8). Sundays are reserved for short excursions and picnics, which may include forest bathing, hiking, swimming, *etc.* At the start of

Boys: Monday, Wednesday, Friday • Girls: Tuesday, Thursday, Saturday			
	Sport-Science Concepts	Life-Skills-Development Activities	Cultural Activities
<b>Morning Shift</b> (6: 00 <i>a. m.</i> – 10: 00 <i>a. m.</i> )	Small Build	Big Build	Medium Build
<b>Day Shift</b> (10: 15 <i>a. m.</i> – 2: 15 <i>p. m.</i> )	Medium Build	Small Build	Big Build
<b>Evening Shift</b> (2: 30 <i>p. m.</i> – 6: 30 <i>p. m.</i> )	Big Build	Medium Build	Small Build

**Figure 8.** Scheduling of scientific, life-skill-development and cultural activities (complimentary to sport-practice days) to keep participants engaged throughout the day; hairstyle, footwear and clothing as in Tables AFII-1 and AFII-5 — health and safety inspections as in Figure 6

of summer camp a mentor is assigned to each participant, who'll guide the incumbent in emotional and physical upbringing as well as monitor progress throughout the camp duration and during follow-up weekly ZOOM sessions. Players are encouraged to express their frank opinions regarding the coaching and the teaching styles of coaches and physical-education teachers, respectively (Genç, Temel, 2020).

Below is a short description of scientific, life-skill-development and cultural activities:

#### **Pre-Session Activity**

Setting up (start of the session) exercises of 5-minute duration are to be performed by the players (Kamal, Khan, 2014; 2018).

## Hourly Activity

End-of-the-hour exercises of 5-minute duration should keep the players attentive. Pre-session and endof-the-hour exercises include hand exercises (starting with palms together, hands in sagittal plane parallel to floor and stretched to 180° so that hands are now in the frontal plane; again starting with palms together and hands taken in the same position to top of head so that hands now lie along the longitudinal axis), stretching body by standing on toes, reaching to toes such that knees are not flexed, exercising to relax neck muscles (chin up, chin down, neck turned to left and right at right angle). The anatomical axes and planes mentioned above are explained in Additional File of Kamal, Rajput, Ansari (2016).

1. Sport-Science Concepts (3 hours 15 minutes): Simple science lessons explaining concepts involved in different moves of sport practiced in summer camp; sessions formed according to build, players are instructed to change seats in the middle of each session to break monotonous posture and sedentary style, since sessions are formed according to build

2. Leisure Activities (15 minutes): Cycling, table tennis, billiard/pool, etc.

## 3. Sleep Session (30 minutes): See Figure 7

4. Workshops developing soft (power) skills (3 hours 15 minutes): Workshops are to be organized at the mental level of under-11 players on the following topics:

- Anger management
- Leadership and personality
- Obesity management

- Communication skills • Emotional intelligence
- building (see below)
- Task and time management • Team kinematics and

- Goal setting and realization
- Problem formulation and solving

dynamics

Desirable traits in the personality of the future leaders are unshakable will, flexibility and principled approach, quest for truth and knowledge, acceptance of new realities, focused on goal, belief in oneself, empathy for emotions of others, acceptance of losing and determination to re-emerge; honesty, respect and care for colleagues and contemporaries (see authors' note); character, courage, industry and perseverance (as per sayings of Quaid-é-Azam, Mohummed Ali Jinnah, the Founder of Pakistan). In addition, talks by motivational speakers should be arranged every fortnight.

# 5. Leisure Activities (15 minutes): See No.2

# 6. Sleep Session (30 minutes): See No.3

7. English Communication Skills (45 minutes): Grammar, composition and creative writing as well as spoken English taught by native speakers (with particular emphasis on correct pronunciation employing signal-processing devices, e. g., cathode-ray oscilloscope, as well as image-processing techniques to monitor and fine-tune mouth movements, e. g., moiré fringe topography — Figure 5b (Kamal, 2008) and dotted-rasterstereography — Figure 5d (Wasim, Kamal, Shaikh, 2013).

**8.** Cultural and Environmental-Awareness Activities (2 *hours* 30 *minutes*): drawing, art and craft, photography as well as movie-making competitions promoting cultural integration; programs (films, songs, short plays) on cultural understanding, empathy and inclusiveness; history, geography and politics of the participating countries; awareness for environmental protection — plastic pollution, global warming, marine-life protection, tree protection and plantation (setting up and end-of-the hour exercises included)

#### 9. Leisure Activities (15 *minutes*): See No.2

#### 10. Sleep Session (30 minutes): See No.3

#### Post-Session Activity

End-of-the session exercises consist of stretching, bending sideways, bending to touch toes with knees extended, moving head up and down; rotating neck on both sides so that the respective chin is aligned with shoulder. In addition, end-of-the-session exercises should include focusing eyes to infinity as well as moving eyeballs up, down and sideways.

Sundays are reserved for short excursions and picnics.

**11. Weekly Post-Summer-Camp-Reinforcement Session (1** *hour***):** Throughout the year, ZOOM sessions for all participants of summer camp are arranged to reinforce the spirit of inclusiveness and sharing reports of work done by the participants in their community to achieve these objectives.

These summer camps should, later, be extended to include gymnastics, tennis as well as football, described elsewhere (Kamal, Khan, 2020*b*) and become the basis for establishing under-11-regional games. These games should be held in countries, which have not hosted summer Olympics, winter Olympics or special Olympics, FIFA World Cup, *etc.*, so that such countries are, also, given a chance to come in the mainstream and develop sport facilities. Selection should be based on existing facilities (not promises) and number of under-11-summer camps organized during the previous year. Teams should be formed according to gender and build.

# CONCLUSION

Steve Schmidt, Co-Founder, the Lincoln Project, remarked in the Christian Amanpour Show aired on CNN on December 8, 2020, —You can bring your enemy to *submission* or *exhaustion*. A third path may be integration of the communities through \_sport and culture', an integral part of \_soft power' and the currently applied \_smart-intelligent power'.

If European nations can work out their internal differences and reach to the level of EU, why not India and Pakistan! The divided families in India and Pakistan should become a motivation and an active source to establish sustained peace between India and Pakistan through a complete resolution of various issues hovering the politics of both countries. To cite some prominent examples of deep interpersonal relationships existing between the two neighboring countries: (*a*) the tenth President of Pakistan was born in Delhi (now in India) in 1943; (*b*) father of the sitting (thirteenth) President of Pakistan, Dr. Arif Alvi, was the personal dentist of the first Prime Minister of India, Jawaharlal Nehru;

(c) the twelfth Prime Minister of India, Inder Kumar Gujral was born in Pari Darveza, Sohawa Tehsil, Jhelum, Punjab (now in Pakistan) in 1919.

Recent rapport-building measures through people-to-people contact in the wake of uncontrolled corona sufferings in India may serve as icebreaker, noting that —Pakistan is a country with open-minded peoplel (Brazilian Businessman Carl Roland Urban, November 2, 2019) and –Pakistanis are liberal minded and independent (Chairwoman, Acid Survivors Foundation, Valerie Khan, November 15, 2019).

In the words of Sophia Arandia, Consultant at TLC Schools, —Pakistan is Switzerland in the Eastl (November 13, 2020). The above-mentioned 3 interviews were conducted by Maija Liuhto and aired on Indus News Visitors' Book as Episodes 28, 30 and 71, respectively. With the picturesque tourist destinations in Himachal Pradesh and Uttarakhand (in India) as well as Gilgit-Baltistan, Kashmir and Khyber Pakhtunkhwa (in Pakistan), the two countries should develop joint tourism programs as well as utilize intelligently water resources from glaciers. This is the earnest desire of the authors of this piece of work to see in their lifetime *love* taking up *hate*, *collaboration* taking up *confrontation*; both countries economically independent and self-sustained with their human-development as well as gross- national-happiness indices highest in the South-Asian region through change of mindset of the future generations of Asia (a continent, which is the source of major religions and oldest civilizations of the world) by organizing summer camps and reinforcing the concepts year-round through video- conferencing techniques.

# **KEY POINTS**

- Conflict situations at the state level should be managed through smart-intelligent power to prevent them from escalating to an all out war.
- Pakistan has its borders touching China, India and Russia (all of these four are nuclear and missile powers); any conflict may involve nuclear, biological, chemical and particle-beam weapons.
- There is a dire need to reduce tensions between India and Pakistan through sport diplomacy; in the past cricket matches have been used by Pakistan to avoid war between the two countries.
- Mindset of the younger generation should be changed by organizing regional summer camps for under-11 players, where participants are coached in athletics, squash and cricket.
- In addition to sport, the participants are trained in soft (power) skills, sport-science concepts as well as cultural and environmental-awareness activities.

#### **DEDICATION**

The authors dedicate this paper to the loving memory of Ambassador of Peace between India and Pakistan, *Mohummed Yosuf Khan*, commonly known as *Dilip Kumar* — born December 11, 1922 in Kissa Khawani Bazar of Peshawar, now in Pakistan; passed away July 7, 2021 in Mumbai, India, where he was given a state burial. Decorated with Indian awards, Padma Bhusan in 1991, Dadasaheb Phalke Award in 1994 and Padma Vibhustan in 2015; the highest civil award of Pakistan, Nishan-é-Imtiaz in 1998 as well as CNN-IBN Lifetime Achievement Award in 2009. Dilip Kumar exerted his influence to resolve Kargil conflict in 1999. He was interested in sport too. Government of Pakistan has declared his house in Peshawar as a national heritage and plans to convert it into a museum.



# REFERENCES

- American Academy of Pediatrics Committee on Sports Medicine (1982). Climatic heat stress and the exercising child. *Pediatrics*, 89 (6), 808, 809
- American Academy of Pediatrics Committee on Sports Medicine and Fitness (2000). Climatic heat stress and the exercising child and adolescent. *Pediatrics*, 106 (1), 158, 159
- Aziz, Q. (1974). Blood and Tears, 1st Ed., Karachi, Pakistan: Publication Division of United Press of Pakistan
- Badau, D., Prebeg, G., Dušan, M., Badau, A. (2015). Fitness index and VO<sub>2</sub>max of physical-education students. *Science, Movement and Health, 15 (2, Supplement), 246-251*
- Baker, R. E., Baker, P. H., Atwater, C., Esherick, C. (2018). U. S. sport diplomacy in Latin America and the Caribbean: a programme evaluation. *Journal of Sport for Development*, 6 (10), 71-85
- Beacom, A. (2000). Sport in international relations: a case for cross-disciplinary investigation. *The Sports Historian*, 20 (2), 1-23

- Biswas, S., Biswas, A., Bandyopadhyay, N. (2021). Effects of four weeks intervention of yogic practices on cricketspecific-motor fitness. *Journal of Advances in Sports and Physical Education*, 4 (5), 125-130
- Cárdenas, A. (2013). Peace building through sport? An introduction to sport for development and peace. *Journal* of Conflictology, 4 (1), 24-33
- Catalán-Eslava, M., González-Víllora, S., Pastor-Vicedo, J. C., Contreras-Jordán, O. R. (2018). Analysis of tactical, decisional and executional behaviour according to the level of expertise in squash. *Journal of Human Kinetics*, 61 (1), 227-240
- Domingos, C., Alves, C. P., Sousa, E., Rosa, A., Pereira, J. G. (2020). Does neurofeedback training improve performance in athletics? *NeuroRegulation*, 7 (1), 8-17
- Dao, M., Chin, J. (2021). The Americanization of sport for development and peace: examining American SDP intern experiences. *Journal of Sport for Development*, 9 (1), 32-47
- English, C. V. (2017). A Qualitative Exploration of the South African Cricket Development Environment. *PhD Dissertation*, Edinburgh Napier University, Edinburgh, UK
- Evans, A. B., Blackwell, J., Dolan, P., et al. (2020). Sport in the face of the COVID-19 pandemic: towards an agenda for research in the sociology of sport. European Journal for Sport and Society, 17 (2), 85-95
- Genç, D., Temel, C. (2020). Evaluation of physical-education teachers based on students' opinions. Uluslararası Beden Eğitimi Spor ve Teknolojileri Dergisi (International Journal of Physical Education, Sport and Technologies), 1 (1), 24-33
- Henriksen, K., Storm, L. K., Larsen, C. H. (2018). Organizational culture and influence in developing athletes. In: Sport Psychology for Young Athlete (Ed. Knight, C., Harwood, C., Gould, D.), pp. 216-228, New York, United States: Routledge
- Izuyama, M. Ogawa, S. (2003, March). The nuclear policy of India and Pakistan. *NIDS Security Reports, No. 4*, 59-89
- Jones, B. J., Hardy, L., Lawrence, G., *et al.* (2019). The identification of -Game Changers in England cricket's developmental pathway for elite spin bowling: a machine-learning approach. *Journal of Expertise*, 2 (2), 92-120
- Kaidal, A., Badaki, O. L., Sanusi, A. A. (2014). Sports and conflict prevention; the way forward for global peace. *IOSR Journal of Sports and Physical Education (IOSR-JSPE)*, 1 (7), 18-21
- Kamal, S. A. (2007, August 30). Communication skills in international relations. Golden Jubilee Seminar Series — Graduate Studies Discussion Group, Karachi, Pakistan: Department of International Relations, University of Karachi (seminar); abstract: https://www.ngds-ku.org/Professional/IR01.pdf
- Kamal, S. A. (2008, April 23, 24). Pattern recognition using moiré fringe topography and rasterstereography. In: Proceedings of International Symposium on Biometrics and Security Technologies (IEEE ISBAST 2008), pp. 1-7, Islamabad, Pakistan: Bahria University; full text: https://www.ngds-ku.org/Papers/C68.pdf
- Kamal, S. A. (2009, October 22). Role of information processing in conflict resolution. Golden Jubilee Seminar Series — Graduate Studies Discussion Group, Karachi, Pakistan: Department of International Relations, University of Karachi (seminar); extended abstract: https://www.ngds-ku.org/Presentations/IR02.pdf
- Kamal, S. A. (2010a, March 11). Simulation and soft power. Golden Jubilee Seminar Series Graduate Studies Discussion Group, Karachi, Pakistan: Department of International Relations, University of Karachi (seminar); extended abstract: https://www.ngds-ku.org/Presentations/IR03.pdf
- Kamal, S. A. (2010b, May 10, 11). An airport-passenger-screening system based on emitted-IR and thermal radiation. In: *The Fifth Symposium on Computational Complexities, Innovations and Solutions (CCIS 2010)*, p. 11, Abbotabad, KP, Pakistan: COMSATS Institute of Information Technology; extended abstract#2: https://www.ngds-ku.org/Presentations/Security.pdf
- Kamal, S. A. (2010c, September 29). Soft power, smart power and intelligent power. Graduate Studies Discussion Group, Karachi, Pakistan: Department of International Relations, University of Karachi (a seminar in honor of Joseph Nye); extended abstract: https://www.ngds-ku.org/Presentations/IR04.pdf

- Kamal, S. A. (2011a, March 31). Intelligent power and conflict resolution. *Guest Seminar Series*, Lahore, Pakistan: Department of Political Science, the Quaid-é-Azam Campus, University of the Punjab (seminar); extended abstract: https://www.ngds-ku.org/Presentations/IR05.pdf
- Kamal, S. A. (2011b, May 28). Intelligent power, conflict resolution, complexity and international trade. Guest Seminar Series, Karachi, Pakistan: City Campus, Institute of Business Administration (seminar); extended abstract: https://www.ngds-ku.org/Presentations/IBA.pdf
- Kamal, S. A. (2014, December 3, 4). Smart-intelligent power and conflict management at state-level. In: *The International Conference on Challenges of Transition in Social Sciences (ICCTSS 2014)*, p. 32, Karachi, Pakistan: Faculty of Social Sciences, University of Karachi; extended abstract#VII-II: https://www.ngds-ku.org/Presentations/Smart-Intelligent.pdf
- Kamal, S. A. (2015). Optimal-mass management in obese children. International Journal of Biology and Biotechnology (Karachi), 12 (3), 381-391; full text: https://www.ngds-ku.org/Papers/J38.pdf
- Kamal, S. A. (2016, April 7). Manual for Obtaining Anthropometric Measurements. The-NGDS-Pilot-Project-e-Publication, University of Karachi, Karachi, Pakistan, version 9.11, full text: https://www.ngds-ku.org/ngds\_folder/M02.pdf
- Kamal, S. A. (2017). In search of a definition of childhood obesity. *International Journal of Biology and Biotechnology (Karachi)*, 14 (1), 49-67; full text: https://www.ngds-ku.org/Papers/J45.pdf
   Additional File 3: Graphical Representation and Color Scheme (p. 3)
   https://www.ngds-ku.org/Papers/J45/Additional\_File\_3.pdf
- Kamal, S. A. (2019, May 23). *Some Pictures from the Hikari Kindergarten*. The-NGDS-Pilot-Project-e-Publication, Karachi, Pakistan, full text: https://www.ngds-ku.org/Hikari/Hikari\_Kindergarten.pdf
- Kamal, S. A. (2020, May 23). Some Pictures of the Nikitin Family. The-NGDS-Pilot-Project-e-Publication, Karachi, Pakistan, full text: https://www.ngds-ku.org/Nikitin/Nikitin\_Family.pdf
- Kamal, S. A. (2021). The covariant-enhanced-coupling model of global-elctrocortical activity. *International Journal of Biology and Biotechnology (Karachi)*, 18 (3), in press; full text: https://www.ngds-ku.org/Papers/J61.pdf
- Kamal, S. A., Ansari, M. J., Sarwar, M., Ansari, S. A., Naz, A. A., Jamil, N. (2021). Percentiles of height and mass scaled for the Pakistani population: application to determine build of a gymnast. Uluslararası Bozok Sport Bilimleri Dergisi (Bozok International Journal of Sport Sciences), 2 (1), 33-57, full text: https://www.ngds-ku.org/Papers/J60.pdf

Additional File 1: Techniques of Anthropometric Measurements (step-by-step procedures for measurements of height, mass and mid-upper-arm circumference, illustrated through labeled photographs) https://www.ngds-ku.org/Papers/J60/Additional File 1.pdf

Additional File 2: Color Coding used in Growth-and-Obesity Vector-Roadmap 2.6 https://www.ngds-ku.org/Papers/J60/Additional File 2.pdf

Additional File 3: Method of Constructing Growth-and-Obesity Vector-Roadmap 2.6 https://www.ngds-ku.org/Papers/J60/Additional\_File\_3.pdf

Kamal, S. A., Azeemi, H. I., Khan, S. R. (2017). Psychological testing, physical examination and fitness testing for primary-school students for participation in gymnastic activities. *Pamukkale Journal of Sport Sciences* (*Karachi*), 8 (2), 15-40; full text: https://www.ngds-ku.org/Papers/J48.pdf

Kamal, S. A., Jamil, S. S. (2014). KJ-regression model to evaluate optimal masses of extreme cases. International Journal of Biology and Biotechnology (Karachi), 11 (4), 623-648; full text: https://www.ngds-ku.org/Papers/J34.pdf

Additional File 3: Extended Growth Tables and Charts (from CDC Growth Tables and Charts) https://www.ngds-ku.org/Papers/J34/Additional\_File\_3.pdf

Kamal, S. A., Jamil, N., Khan, S. A. (2011). Growth-and-Obesity Profiles of children of Karachi using boxinterpolation method. *International Journal of Biology and Biotechnology (Karachi)*, 8 (1), 87-96; full text: https://www.ngds-ku.org/Papers/J29.pdf

- Kamal, S. A., Jamil, S. S., Razzaq, U. (2014). Stunting induced by wasting wasting induced by stunting: a case study. *International Journal of Biology and Biotechnology (Karachi)*, 11 (1), 147-153; full text: https://www.ngds-ku.org/Papers/J32.pdf
- Kamal, S. A., Khan, S. A. (2014). Primary-physical-education practices in Pakistan and England: health and safety perspectives. *International Journal of Biology and Biotechnology (Karachi)*, 11 (2&3), 401-419 (hand washing — p. 411; sleep routine — p. 409, 410); full text: https://www.ngds-ku.org/Papers/J33.pdf
- Kamal, S. A., Khan, S. A. (2015). Hairstyle, footwear and clothing for gymnastic activities in the primary-school setting. *Pamukkale Journal of Sport Sciences*, 6 (3), 29-45; full text: https://www.ngds-ku.org/Papers/J37.pdf
- Kamal, S. A., Khan, S. A. (2018). Overcoming vitamin-D deficiency in male gymnasts during preteen years. The Sky (International Journal of Physical Education, Health, Sports and Allied Sciences), 2, 60-75; full text: https://www.ngds-ku.org/Papers/J50.pdf
- Kamal, S. A., Khan, S. A. (2020a). Association of balanced diet and physical activity with fitness of young children and their parents. *The Shield (Research Journal of Physical Education and Sports Sciences)*, 15, 119-147; full text: https://www.ngds-ku.org/Papers/J58.pdf
- Kamal, S. A., Khan, S. A. (2020b). Operation of sport academies during and after corona pandemic. Uluslararası Beden Eğitimi Spor ve Teknolojileri Dergisi (International Journal of Physical Education, Sport and Technologies), 1 (2), 12-29; full text: https://www.ngds-ku.org/Papers/J56.pdf
- Kamal, S. A., Khan, S. A., Aslam, S. (2020). A model football academy for residents of Lyari Town, Karachi, Pakistan. *The Sky (International Journal of Physical Education and Sports Sciences)*, 4, 5-38; full text: https://www.ngds-ku.org/Papers/J57.pdf
- Kamal, S. A., Rajput, M. K., Ansari, S. A. (2016). Gait analysis of 7-10-year-old children of Karachi from nutritional-status perspective. *International Journal of Biology and Biotechnology (Karachi)*, 13 (1), 13-25; full text: https://www.ngds-ku.org/Papers/J41.pdf Additional File: Anatomical and Physiological Terms

https://www.ngds-ku.org/Papers/J41/Additional\_File.pdf

- Kamal, S. A., Raza, S. K., Sarwar, M. (2016). Mathematical modeling of scoliosis indicators in growing children. International Journal of Biology and Biotechnology (Karachi), 13 (3), 471-484; full text: https://www.ngds-ku.org/Papers/J42.pdf
- Kamal, S. A., Raza, S. K., Sarwar, M. (2020). Effectiveness of proposed risk indicators in scoliosis case finding. International Journal of Biology and Biotechnology (Karachi), 17 (3), 517-530; full text: https://www.ngds-ku.org/Papers/J55.pdf
- Kamal, S. A., Sarwar, M., Razzaq, U. A. (2015). Effective decision making for the presence of scoliosis. International Journal of Biology and Biotechnology (Karachi), 12 (2), 317-328; full text: https://www.ngds-ku.org/Papers/J36.pdf
- Kaplan-Sayı, A. (2017). Students' views about enriched summer camp for high-school students. EURASIA Journal of Mathematics, Science and technology Education, 13 (11), 7161-7177
- Khosla, D. G. (1965). The Murder of the Mahatma, 1st Ed., Mumbai, India: Jaico Publishing House
- Lokhande, R. A., Chawan, K. (2018). Prediction of live cricket score and winning. *International Journal of Trend* in Research and Development, 5 (14), 91-93
- Mahmood, K. (2010). *Pakistan-India Relations*: A *Pakistan Narrative*, p. 16, Islamabad, Pakistan: Pakistan Institute of Legislative Development and Transparency (PILDAT)
- Mansoori, M. (2021, February 9). Masalaé Kashmir: hal ka waqt aã gaya (the Kashmir problem: time has come for solution). Karachi, Pakistan: Jang, p. 11
- Marker, J. (2010). *Quiet Diplomacy*, pp. 129-130, Oxford, United Kingdom & Karachi, Pakistan: Oxford University Press

- Mirza, M. (2021, May 9). Junubee Asia main bara breakthrough: Pak Bharat taălukaãt ki bahaãlee kaé leaé Kashmiriun ko bhi eătémaãd mein léna ho ga (Big breakthrough in South Asia: Kashmiris need to be taken into confidence for resuming Pakistan-India relationship). Karachi, Pakistan: Jang, p. 12 (Sunday magazine)
- Murray, S. R. (2018). Profiling Elite Male Squash Performance using a Situation-Awareness Approach Enabled by Automatic-Tracking Technology. *PhD Dissertation*, Middlesex University, London, UK
- Newell, W. H. (1955). The Brahman and caste isogamy in North India. *The Journal of the Royal Anthropolgical Institute of Great Britain and Ireland*, 85 (1&2), 101-110
- Noorbhai, H. (2020). Biomechanical implications of batting backlift technique in cricket: a collation of current evidence. *ISBS Proceedings Archive*, 38 (1), 964-967
- Omelan, A. A., Breś, B., Raczkowski, M., Podstawski, R., Polgár, T., Koltai, M. (2018). Summer camps from the perspective of participants and organizers. *Polish Journal of Sport Tourism*, 25 (4), 33-38
- Perreault, M. E., Gonzalez, S. P. (2021). Generalize over specialize: examining the long-term athlete develop- ment model to optimize youth athlete development. *Strategies (A Journal for Physical and Sport Educa- tors)*, 34 (3), 11-15
- Pidd, H. (2012, July 25). Why India is no place to be a woman? Karachi, Pakistan: DAWN, p. 12: International
- Salik, S. (2017). *Main Nay Dhaka Doobtay Dekha*, Lahore, Pakistan: Al-Faisal Nashirăan— Urdu edition of *Witness to Surrender* (Indian interference in East Pakistan p. 131; Mujeebur Rahman's admission p. 11)
- Shah, S., Hazarika, P. J., Hazarika, J. (2017). A Study on performance of cricket players using factor-analysis approach. *International Journal of Advanced Research in Computer Science*, 8 (3), 656-660
- Shahab, Q. (2003). Shahb Nama, p. 1157, 26th Ed., Karachi, Pakistan: Sang-é-Meel Publications
- Simonson, W. (2020). Vitamin C and coronavirus. Geriatric Nursing, 41 (3), 331-332
- Szabo, D. A., Neaglu, N., Ardelean, M., Sopa, I. (2019). Psychomotor evaluation of athlete children. *Discobolul* (*Physical Education, Sport and Kinetotherapy Journal*), 59 (1), 56-69
- Tahir, A. (2015). Destiny to Despair, p. 223, Karachi, Pakistan: Paramount Books
- Wasim, M., Kamal, S. A., Shaikh, A. (2013). A security system employing edge-based rasterstereography. International Journal of Biology and Biotechnology (Karachi), 10 (4), 613-630; full text: https://www.ngds-ku.org/Papers/J31.pdf
- Whitley, M. A., Farrell, K., Wolff, E. A., Hillyer, S. J. (2019). Sport for development and peace: surveying actors in the field. *Journal of Sport for Development*, 7 (11), 1-15
- Williams, B. K., Sanders, R. H., Ryu, J. H., Graham-Smith, P., Sinclair, P. J. (2020). The kinematic differences between accurate and inaccurate squash forehand drives for athletes of different skill levels. *Journal of Sports Sciences*, 38 (10), 1115-1123

Additional Resources: ADDITIONAL FILE 1 https://www.ngds-ku.org/Papers/J62/Additional\_File\_1.pdf lists SOPs for operation of summer camps during and after corona pandemic as well as infrastructure guidelines to maintain physical distancing among players, coaches and administrative staff.

ADDITIONAL FILE 2 https://www.ngds-ku.org/Papers/J62/Additional\_File\_2.pdf includes clothing guidelines for different sport (athletics, squash, cricket) and cultural activities.

*Authors' Note*: The authors state that there are no financial or non-financial competing interests in the research presented in this paper. The first author is indebted to Dr. Iqra Ahmed Kamal, MBBS, Dow, House Officer, Dow University Hospital, Ojha Campus, Karachi, Pakistan for suggesting names of variants of coronavirus as COVID-19-mutated, COVID-19-mutated-III, COVID-19-mutated-III, etc. as well as suggesting the personal qualities — honesty, respect and care.