

**MEASURING RESILIENCE AND COPING STRATEGIES OF ATHLETES DURING
COVID-19 PANDEMIC**

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ABSTRACT

Objective: The objectives of this study involved to identify psychological issues experienced by athletes and to identify the association between resilience and coping strategies of athletes during COVID-19 pandemic.

Methodology: A cross-sectional survey was designed to explore the views of athletes and a convenient sampling technique was employed using an online survey. The survey link was sent to athletes to collect data on “Measuring Resilience and Coping Strategies of Athletes during COVID-19 Pandemic”.

Main Findings: A statistically significant association between resilience and coping was identified. Age of the participants didn't show any significant relationship with resilience and coping of athletes. Both male and female athletes reported lower levels of apparent impact of COVID-19, a typical degree of resilience and coping styles were similar. The participants additionally detailed utilizing positive coping styles, for example, active coping, emotional help, and religious coping.

Implications: These results can be attributed to socio-cultural and religious background of the participants. The discoveries of this examination can possibly prompt more detailed and exploratory investigations with respect to cope with issues caused by COVID-19 pandemic.

KEYWORDS: *COVID-19, Pandemic, Athletes, Resilience, Coping Strategies, Gender*

1. INTRODUCTION

It has been more than eight months since the main instance of coronavirus was accounted for in Wuhan, China. The 2019 coronavirus (COVID-19) pandemic, brought about by the intense respiratory condition (Jones 2020). Beginning from December 2019, the infection has jumped outskirts, influencing 16,285,278 imprints from the globe. Despite the fact that by far most of cases at first started in China, it is as of now the United States with the highest number of cases. Italy, Spain, Germany, France, Iran, the United Kingdom, Switzerland, United States, Brazil and India are among the most impacted nations. Specialists accept the real number of COVID-19 cases might be higher than detailed in light of the fact that numerous patients have been discovered asymptomatic, while most nations are battling with insufficient testing (Pollán, 2020). The worldwide death rate for COVID-19 right now is 6%, which is a lot higher than the occasional influenza. The loss of life from the conceivably savage infection had crossed 649,847 in the last tally, where in excess of 9.961,098 individuals have been recovered (at the time of writing this paper).

The COVID-19 outbreak was declared an international public health emergency on January 30, 2020 by the World Health Organization (WHO) as it kept flooding through the globe influencing many nations. A wide section of total populace was basically limited to their homes, attributable to lockdowns in almost all the affected countries during the COVID-19 outbreak. This capricious, quick spreading irresistible malady has been causing tension, stress, and anxiety, all of which as per WHO are characteristic of mental reactions to the haphazardly evolving condition. Unfriendly psychosomatic results among people are in any case expected to increment fundamentally because of the pandemic itself and furthermore because of the steady progression of promptly accessible data and fortified informing acquired by means of online interpersonal interaction administrations of practically all structures.

Although the lockdown helped achieve the goal of reducing infection, it also reduced interaction with family, friends. Many studies indicate that “people from different walks of life experienced a sense of insecurity and fear” as mentioned above. Research from China found that “fear of the pandemic could lead to behaviors such as stress, anxiety, depression, and an increase in alcohol and tobacco use” (Rajkumar, 2020). Furthermore, the application of drastic pool-down measures in many countries affected different aspects of the lives of people, leading to a variety of psychological problems such as anxiety and depression. The pandemic also represents a “source of uncertainty and stress due to lack of knowledge and financial difficulties”. However, it should not be assumed that “this pandemic will affects the entire population equally at physical or psychological level”. From a medical point of view, the pandemic is especially a threat for the elderly and people with comorbidities, although it also has serious effects in children in a few countries (Aurélié, 2020).

Many young adults showed high levels of psychological issues in response to the pandemic. In a nationwide survey of more than 52,000 participants in China, “people between the ages of 18 and 30 and over the age of 60 presented a high post-traumatic distress score” as reported by Guan, (2020). The “high level of anxiety in young people may be due to the fact that they gather a large

amount of information from social media”, which can easily trigger stress. In contrast, “anxiety in the elderly can be attributed to the fact that this population has the highest mortality rate as a result of COVID-19” (Ioannidis, 2020). During this situation, the “psychiatric patients suffered from anxiety and depression due to lack of access to psychiatric care”. Many “workers suffered from negative mental health because of the perceived risk of contracting COVID-19 in the workplace”. Healthcare workers experienced “high levels of anxiety due to concerns about the spread of COVID-19 among their family members” (Helsper, 2020).

There are many channels through which the spread of an infectious disease affects the economy. The direct and indirect economic costs of the disease are often the subject of health economics studies on the disease burden. A major financial impact of the COVID 19 outbreak is clearly found in “stock markets and other enterprises, for example, the travel and tourism represent 10% of GDP worldwide” (Maliszewska, 2020). Accordingly, a number of people are affected, usually those who have the minimum wage and those who work for themselves or in comfortable conditions in the jig economy or work with part time contracts.

Similarly the monetary downturns caused bigger imbalances, today one of the most substantial effects of the COVID-19 has been a more extensive point of issue being experienced by parents and children. Indeed, even in the wealthiest area on the planet, there stay a huge number of children that are advised to follow online courses yet many of them don't have the way to do as such (Kapasias, 2020). Families with more youngsters that are compelled to share one computer, homes with poor web connection, kids with delicate psychological wellness and inspiration to continue learning or who end up in unsupportive home situations are to be found all over the place. These are unanswered calls from an earlier time that today reverberate more grounded than previously. Additionally, guardians around the globe are confronting the surprising test of venturing up their instructive help to their kids in the months to come, and simultaneously satisfy their expert and different duties, which is a much more prominent test for parents (Kapasias, 2020).

The COVID-19 pandemic has upset numerous parts of life including an “end of athletic activities around the world” (Maugeri, 2020). The wearing business has seen the deferment and crossing out of games at territorial, national, and global levels. As a result of the pandemic, the Olympics and Paralympics have been postponed unprecedented for the authentic background of the propelled games, and will rather be held in 2021. The ensuing limitations on bunch preparing because of social removing measures, conclusion of preparing offices and loss of eye to eye access to mentors and bolster work force has caused vulnerability and huge pressure, uneasiness and disappointment among the competitors.

Understudy competitors, as an unmistakable populace who are continually confronting interesting social and scholastic difficulties, are at an expanded hazard for mental issues that may later bring about a few stressors during their athletic professions. With the COVID-19 pandemic emergency driving schools to close and athletic seasons being stopped or dropped with future preparing unsure, it is essential to distinguish a portion of the special difficulties this populace right now faces. It is likewise basic that the psychological and physical situation of understudy competitors

is comprehended, so as to guarantee their necessities are tended to, and the wellbeing and prosperity of this populace is secured (Giustino, 2020).

Right now, a major fear and threat is that people are cut off from human contact. Social interaction including embracing, shaking hands and social events are currently under threat. Many people are encountered with anxiety or distress. Older people, who are trying to avoid social interaction are also showing psychological distress. In short, the outbreak is having negative effects on people of all age groups and people are trying to cope with the COVID-19 pandemic differently based on their knowledge, information, and abilities. There is a scientific evidence that “resilience plays a significant role as a motivational variable, so that, in addition to being a stimulus for the realization of personal goals, it provides adequate mechanisms to deal with adverse situations of stress and anxiety” (Edwards, 2016). It is assumed that once the COVID-19 pandemic is over, an epidemic of emotional well-being will follow.

To put it plainly, the COVID-19 pandemic has upset for all intents and purposes each part of day by day living, causing constrained separation and social separation, monetary difficulty, fears of getting a conceivably deadly disease and sentiments of vulnerability and sadness. Sadly, there is no recipe or working manual for how to adapt to the current worldwide pandemic. Past examination has reported a variety of reactions to mass emergencies or fiascos, including ceaseless nervousness and posttraumatic worry just as resilience. Much can be gained from this exploration about how individuals have adapted in the past so as to recognize systems that might be especially powerful in overseeing trouble and developing versatility during these hazardous occasions. Numerous adapting systems (e.g., conduct enactment, acknowledgment based adapting, care work on, adoring consideration rehearses) outfitted to diminish pressure and advance resilience. These systems might be particularly viable on the grounds that they assist people with making significance, manufacture trouble resistance, increment social help, encourage a perspective on our profound human interconnectedness, and take objective coordinated worth driven activities in middle of the COVID-19 pandemic.

As a consequence, rapidly expanding panic regarding COVID-19 may beget enduring psychological problems in public from all the socioeconomic domains, which could potentially be even more detrimental in the long run than the virus itself. Prior studies elucidated that “mental well-being had been heavily affected in this kind of global pandemic”. In many countries including Pakistan, educational institutes are still closed. Sports clubs are closed too and student athletes are isolated to their homes with no physical activity at all. Many of them are facing financial problems as well. Therefore, it was important to measure the impact of COVID-19 pandemic on athletes and their level of resilience to cope with the challenges posed by COVID-19 pandemic. In this background, the researcher evaluated the psychological factors affecting student athletes and their ability to resiliently cope with the challenges during COVID-19 pandemic and afterwards.

2. LITERATURE REVIEW

The COVID-19 pandemic has influenced the life of people in an unexpected way with an extraordinary effect on the wellbeing and day by day life. The game division, including the

individuals who have devoted their lives and regularly organizations to advancing wellbeing through physical activity (PA), is significantly stressed over the prosperity of individuals influenced by the pandemic (Corsini, 2020). The game area is anxious to make its commitment to the recovery of what was once viewed as a healthy lifestyle. Game can support people and social orders to mollify the contrary impacts of the emergency on their carries on through components that can add to individuals' wellbeing, socialization, training and an overall feeling of prosperity. Notwithstanding its terrible short and mid-term wellbeing sway (counting latency, emotional wellness dangers, and uneasiness), the pandemic will likewise have exceptional long haul outcomes on individuals' everyday lives, wellbeing, and for the most part on social orders and numerous segments of the economy, particularly administration areas, for example the travel industry, food and convenience administrations, transportation, and sports (Frank, 2020).

2.1 EFFECT OF COVID-19 ON SPORTING EVENTS

The worldwide reaction has provoked the practically all out shutdown of serious game at all levels. This shutdown has so far incorporated different delays of super occasions, for example, the Olympic Games and European Football Championship, also different groups and occasions in sports as assorted as tennis, and hockey (Rubin, 2020). In addition, in spite of starting hesitance from bodies, for example, UEFA and, the IOC, their aftereffect choices to defer or postpone such occasions have been met with inspiration from different partners (Lima, 2020). By and by, while the pandemic has constrained the degree to which individuals, including the two competitors and everyone, can move around, practice and associate with each other conflicting proof is likewise developing that many are increasingly mindful of the significance of PA than at any other time (Brooks, 2020). There is yet no foggiest idea what game will resemble following the pandemic, especially given the early proof to propose the infection that caused the pandemic is probably going to turn into an ordinary installation in life starting now and into the foreseeable future (Evans, 2020).

To secure competitors and others included, most significant games at around the world, regional and national levels have been postponed from significant distance races to football rivalries, sports titles to ball games, handball to ice hockey, rugby, cricket, skiing, weightlifting to wrestling and that is just a glimpse of something larger. The Olympics and Paralympics, unprecedented for the recorded setting of the bleeding edge games, have been conceded and will be held in 2021 (Simpson, 2020). Notwithstanding COVID-19, an enormous number of occupations are thusly in peril all around, for sports specialists just as for those in related retail and displaying organizations ventures related with classes and events, which consolidate travel, the movement business, establishment, transportation, giving food and media broadcasting, among others. Capable contenders are similarly constrained to reschedule their readiness while endeavoring to stay fit at home, and they chance losing capable supporters who may not reinforce them as from the outset agreed (Lai and Shih, 2020).

2.2 EFFECT OF COVID-19 ON ATHLETES

Various positive COVID-19 tests in competitors at the worldwide have exhibited that nobody is immune to this pandemic and no one is safe. The applied isolation guidelines and ensuing segregation have influenced numerous athletes' capacity to rehearse (Corsini, 2020). Recordings from some notable athletes show that beating the difficulties, proceeding with elective preparing, and adjustment during the pandemic have been conceivable. In any case, various potential issues stay to be tended to for world class competitors, one of which being an across the board worry about emotional wellness issues (Pillay, 2020). While a few competitors will have the option to expand on existing adapting assets, different competitors may encounter a negative reaction over a time of weeks to months. While a specific degree of tension over the coronavirus is totally typical, significant levels of uneasiness or stress can devastatingly affect everyday life. In such manner, sports analysts report a more appeal for online mental directing and determination of mental issues among these competitors during the pandemic. Zhang, (2020), including trepidation of being contaminated, tension of physical recuperation whenever tainted, absence of access to wellness focuses, upset rest, dietary issues, over the top enthusiastic issue, and family clashes. Failure to oversee pressure and absence of appropriate adapting may lead some to encounter short or long haul misery.

The COVID-19 pandemic has as of late been found to genuinely stifle the neuroendocrine-invulnerable framework, which is firmly engaged with pressure and stress just as adapting procedures. The obsessive impact of COVID-19 on these collaborations and reactions proposes pressure weakness that may be recognizable by safe and stress bio markers (Schinke, 2020). Times of idleness, disconnection from athletic groups, good ways from the athletic network, less qualified cooperation with athletic mentors, and absence of social help including fans, sports associations, and media, have likewise been appeared to cause enthusiastic trouble and psychological issues in competitors (Toresdahl, 2020). Due to the multi-dimensional effect of pandemic-related ramifications for competitors, as a one of a kind populace, systematic investigations to distinguish flowing bio markers, time-course of impact and negative effect, and reaction to adapting procedures or intercessions may be helpful, and in accordance with the bio-psycho-social methodology (Sun & Chen, 2020).

2.3 RESILIENCE AND COPING

Gali and Wiley (2008) were the first authors to suggest a conceptual model of resilience. In order to improve the resilience of athletes, the authors explored their impressions of their flexibility experiences in sports. The process of resilience is linked to adversity and the wider impact of this situation on the lives of athletes. These authors identified factors, including injuries, burns, and career transitions, that are capable of influencing athletes' response to difficulties. Glee and Wiley felt that despite the many unpleasant emotions and difficult situations the athletes faced, all the athletes interviewed noted that they benefited from coping with their difficulties.

This flexibility is a common thread between the concept model and the grounded theory of psychological flexibility that affects athletes' personal resources to deal with their difficulties. These features are represented by Galey and Wiley as an attempt to handle the unpleasant emotions

and mental struggles associated with the core players' troubles. The resources mentioned include positivity, determination, competition, determination, maturity and perseverance.

Socio-cultural influences also affect athletes' resilience. Another point of agreement between the theories is that support provided by others is discussed as a key factor in athletes' response to adversity. These include important resources such as social support, family, coaches and training colleagues. Although little attention has been paid to theories, future studies need to investigate the role of the physical education teacher as a facilitator of this flexible development process.

The main distinction between resilience and competing relates to outcomes related to aspects of the stress process (Lee, MH 2015), resilience emotionally and its impact on a person's assessment before reacting before competing and has a positive and protective effect. Competitiveness is characterized by its response to a stressful conflict and its variable effectiveness in resolving outstanding issues.

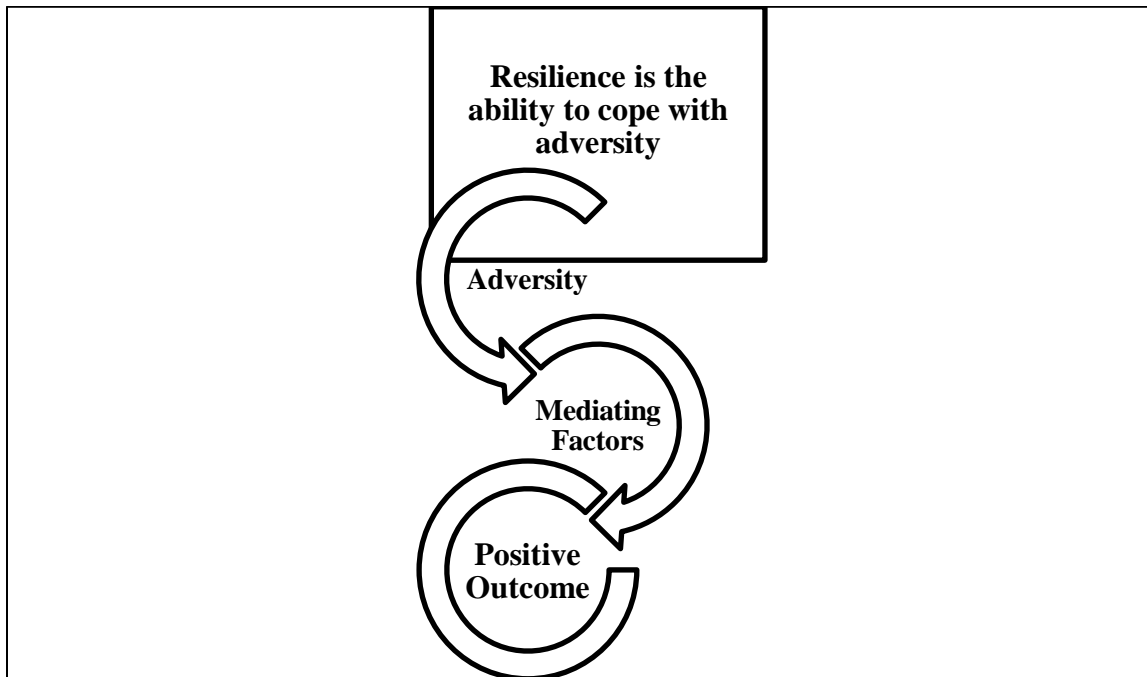


Figure-1

3. METHODOLOGY

A cross-sectional survey was designed to explore the views of athletes and a convenient sampling technique was employed using an online survey. The survey link was sent to athletes to collect data on "Measuring Resilience and Coping Strategies of Athletes during COVID-19 Pandemic". There were two rating scales, which were used to collect data 1) Brief Resilience Scale and 2) The Cope Inventory. In addition to demographic data relating to gender, competition level and tailor-made questions were added for athletes facing different psychological issues during the COVID-19 outbreak. The online survey was completed over a period of 10 days. The study was conducted with the following objectives:

1. To identify issues experienced by athletes during COVID-19 pandemic,
2. To identify the association between resilience and coping styles of athletes during COVID-19 pandemic

The null hypothesis was stated as “there will be no significant association between resilience and coping strategies of athletes during COVID-19 pandemic”.

4. RESULTS

Data were analyzed with SPSS Version 23.0. An analysis of descriptive statistics was conducted to illustrate the demographic and other selected characteristics of the respondents. A total number of 67 athletes participated in the study. The participants were asked about their feelings being experienced during COVID-19 and 14.5% reported having a feeling of anxiety, 6.5% reported having fear, 4.8% reported having anger, 11.3% reported being depressed or low, 17.7% reported having disturbed sleep, 11.3% reported having financial problems and 3.2% reported having relationship issues.

Table-1: Region

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------|---------|---------------|--------------------|
| Valid Punjab | 57 | 85.1 | 85.1 | 85.1 |
| KPK | 3 | 4.5 | 4.5 | 89.6 |
| Gilgit | 2 | 3.0 | 3.0 | 92.5 |
| Unknown | 5 | 7.5 | 7.5 | 100.0 |
| Total | 67 | 100.0 | 100.0 | |

There were 85.1% respondents from the region of Punjab (n=57), 3.0% from Gilgit (n=2) and 4.5% from Khyber Pakhtunkhwa (n=3) as shown in Table-1

Table-2: Age

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|----|---------|---------|---------|----------------|
| Age | 67 | 22.00 | 23.00 | 22.5373 | .50237 |
| Valid N (listwise) | 67 | | | | |

The mean age of the respondents is shown in Table-2 as (M=22.5, SD= .50237).

Table-3: Gender

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid Male | 24 | 35.8 | 35.8 | 35.8 |
| Female | 43 | 64.2 | 64.2 | 100.0 |
| Total | 67 | 100.0 | 100.0 | |

There were 64.2% female and 35.8% male participants as shown in Table-3.

Table-4: Resilience and Coping

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--|---|---------|---------|------|----------------|
| | | | | | |

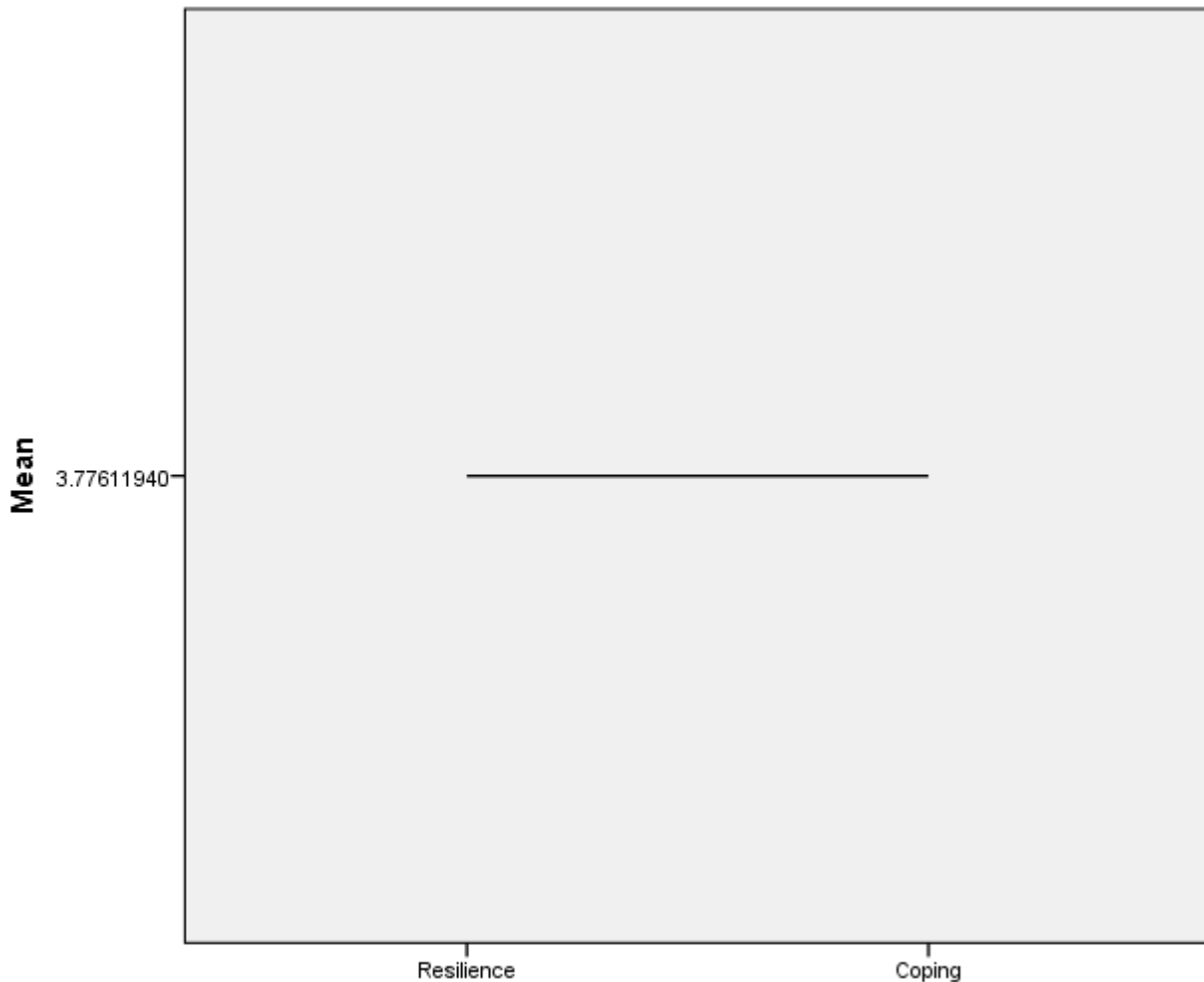
| | | | | | |
|--------------------|----|------|------|--------|--------|
| Resilience | 67 | 2.00 | 5.00 | 3.7761 | .98197 |
| Coping | 67 | 2.00 | 5.00 | 3.7761 | .98197 |
| Valid N (listwise) | 67 | | | | |

The participants' score on Resilience was within the normal range (M=3.7, SD=.98) and there scores on Cope Inventory were also within the normal range (M=3.7, SD=.98) as shown in Table-4.

Table-5 Correlation

| | | Resilience | Coping |
|------------|---------------------|------------|---------|
| Resilience | Pearson Correlation | 1 | 1.000** |
| | Sig. (2-tailed) | | .000 |
| | N | 67 | 67 |
| Coping | Pearson Correlation | 1.000** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 67 | 67 |

Spearman's correlation coefficient was used to evaluate the association between COVID-19-related resilience and coping skills and it was found statistically significant as $p < .01$ (Table-5).



Figur-2

TABLE-6:

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. |
|--------|--------------------|-------------------------|----|-------------|-------|------|
| Age | Resilience | 3.316 | 6 | .553 | 1.780 | .120 |
| | Coping | 18.304 | 6 | 3.051 | .871 | .522 |
| Gender | Resilience | .119 | 6 | .119 | 0.345 | .554 |
| | Coping | 3.645 | 6 | 3.645 | 1.055 | .308 |

A multivariate analysis of variance (MANOVA) didn't reveal a positive association between age and resilience ($p=0.120$), and between age and coping ($p=0.522$). Similarly no positive association was observed between gender and resilience ($p=0.554$) and between gender and coping ($p=0.308$) as depicted in Table-6. Both male and female athletes reported using positive (adaptive) coping skills including active coping ($p=0.259$), emotional support ($p=0.470$) and religious coping ($p=0.308$).

5. DISCUSSION

The current examination intended to research the connection among resilience and coping styles of competitors during COVID-19. The outcomes introduced a significant commitment to the comprehension of resilience and coping, affirming the theory that resilience definitely impacts coping styles. The results indicated a significant association between resilience and coping caused by COVID-19 pandemic and lockdown.

The discoveries of past examinations concur with ongoing writing, in spite of the fact that, most of them contain diverse investigation plans, they are moving towards the possibility that resilience is conceivably identified with the procedure of more versatile coping styles towards pressure. Competitors face a wide assortment of worries, from day by day close to home life to explicit game related battles, in any case, resilient competitors consent to manage various prerequisites, exceptionally effective and resilient competitors to build up these necessities to conquer difficulties.

Resilience is a perplexing procedure that includes adapting to troubles, incitements and positive results. In this manner, lessening the impacts of pressure and emphatically influencing resilience will profit to realize a positive change, which bring about improving the capacity to manage relevant troubles. Moreover, resilience encourages constructive results notwithstanding pressure, and give constructive input to individual assets that will reinforce the player to adapt to future troubles. It was speculated that the resilience competitors will show more versatile reaction. In spite of the fact that the strength level of the members was not high, yet they showed coping to the stressors of COVID-19 out of a positive way.

The participants reported using three different coping styles more frequently including active coping, religious coping and emotion based coping. The term dynamic coping in this examination alludes to adapting style that is described by taking care of issues, looking for data, looking for social help, looking for proficient assistance, evolving conditions, arranging indoor exercises, and rethinking the implications of issues (Jurji, 2018). Religious adapting strategies that have been appeared to have a for the most part positive relationship with mental results, henceforth positive religious adapting, incorporate the collective style, considerate reappraisal of the stressor, and looking for otherworldly help from God (Aflakseir, 2016). Feeling centered coping is a kind of stress the executives that endeavors to lessen negative passionate reactions related with pressure. Negative feelings, for example, shame, dread, uneasiness, gloom, fervor and disappointment are diminished or evacuated by the person by different strategies for adapting (Wireko-Gyebi, 2017). As mentioned above, both male and female athletes indicated using similar coping styles. These results can be attributed to socio-cultural and religious background of the participants.

6. CONCLUSION

Age of the participants didn't show any significant relationship with resilience and coping of athletes. As far as gender differences are concerned, both male and female athletes reported lower levels of apparent impact of COVID-19, a typical degree of resilience and coping styles were similar. The participants additionally detailed utilizing positive coping styles, for example, active coping, emotional help, and religious coping. The discoveries of this examination can possibly prompt more detailed and exploratory investigations with respect to resilience, coping styles, and gender differences in competitors to cope with issues caused by COVID-19 pandemic.

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