JIRSEA
JOURNAL OF INSTITUTIONAL RESEARCH SOUTH EAST ASIA

JIRSEA Issue: Vol. 22 No. 1
JIRSEA/UPM Special Issue
April 2024
ISSN 1675-6061
http://www.seaairweb.info/journal/index.aspx

Submission Timeline

Received: 30/10/2023

Revised as per Preliminary Review: 15/01/2024

Final Revision & Acceptance: 15/03/2024

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CITE ARTICLE: Wong, K.Y., Wan Jaafar, W.M., Sulaiman, T., Ismail, A, Omar Dev, R. D., and Abdullah, M.N.H. (2024). The Relationship Between Malaysian Pre-University Student-Athletes Mental Health And Future Career Planning, *Journal of Institutional Research South East Asia*, 22(1), 227-252

Publisher: SEAAIR Secretariat

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THE RELATIONSHIP BETWEEN MALAYSIAN PRE-UNIVERSITY STUDENT-ATHLETES MENTAL HEALTH AND FUTURE CAREER PLANNING

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ABSTRACT

An athlete's life is full of stress and pressure, as they are more susceptible to stressors like injuries, performance pressure, high expectations, and other difficulties during the transition from an active athlete to retirement. Eventually, student-athletes may withdraw from schools, or drop out from athletic program, which is a great loss to the country. Therefore, this study aimed to investigate the relationship between mental health and career planning—career optimism, career adaptability, career knowledge, college and career readiness self-efficacy and self-efficacy planning—among current Malaysian pre-university student-athletes. This study was conducted in a quantitative manner and employed a Pearson correlation study design. Pre-university student-athletes were selected and three hundred and eighty-nine (389) completed questionnaires were collected for data analysis using the Mental Health Continuum-Short Form (MHC-SF) and Career and Tertiary Education Readiness Inventory (CaTERI). Results revealed that student-athletes' mental health positively correlated with career planning. These findings can be used to assist and guide the development of career planning or skill enhancement programs for Malaysian pre-university student-athletes.

Keywords: Sport, Counseling, Mental Health, Career Planning, Career and Tertiary Education Readiness Inventory (CaTERI)

1. Introduction

Career counseling is a specific area that assist people in career developments pertaining to the relationship of those who work, how they work, why they work and their needs for guidance in seeking and maintaining the jobs and handling related issues (Azizah & Siti Salina, 2015; Duarte, 2017). Counseling in career planning is important especially in the 21th century industrial revolution. Different from the 20th century, life is becoming increasingly complex and unstable. Individuals are expected to be facing difficulties in planning their career pathway, thus affecting their life along with life plan. Therefore, guidance is needed for the youth so that they could strive to live in difficult times (Cheung, 2009).

Today, unemployment is a practical challenge for every individual from varying levels, such as fresh graduates, post-graduates or senior employee. If left unmanaged, it will cause a major problem globally. Hence, guidance and counseling is urgently needed, focusing on career counseling for personal growth and guidance, which will assist youth in determining the skills required in the transition from school to work (Jenschke, 2003; Schmid, et al., 2023). Career planning consists of an intensive activity and conducted in one-to-one or small group settings with the intention of providing assistance to enable individuals to identify, own and manage their concerns about future or personal careers (Patton & McMahon, 2001).

Mental health is a critical concern worldwide, which involves psychological, emotional and social stressor. According to National Health and Morbidity Survey, Malaysian experienced depression, anxiety disorders and other environmental and individual-related stress, which dramatically increased from 12 percent of the population to 29 percent since 2011 (Sahril, et.al., 2021). If mental health issues leave unattended, it will lead to major negative impacts on anxiety, self-doubt, and academic performance (Motevalli, et.al., 2013).

Young athletes are experiencing higher levels of stress during competition and less control over performance exposes them to at risk for mental health conditions (Nuetzel, 2023). Unfortunately, limited attention has been given in addressing the critical individual factors such as distorted cognition and fallacy thinking styles that may contribute to young athletes' mental health as well as student-athletes' responses to their mental health stressor. Therefore, this study aims to determine the relationships between pre-university student-athletes' mental health and career planning via quantitative method using the Mental Health Continuum-Short Form (MHC-SF) to measure and define the pre-university student-athletes' mental health. The operational definition of the career planning is defined by using the Career and Tertiary Education Readiness Inventory (CaTERI), a researcher-adapt instrument, which consists of the definition of career optimism, career adaptability, career knowledge, college and career readiness self-efficacy and self-efficacy planning. In

career counseling, the relations of understanding one self and the available job market serve as a basic planning for people to explore their potential career (Hizam, 2017). In the current study, student-athletes' career optimism, career adaptability, career knowledge, career and college readiness self-efficacy and self-efficacy planning were evaluated upon pre-university sports school life graduation. These constructs are defined based on the selected instruments including Career Future Inventory (CFI), Career and College Readiness Self-Efficacy Inventory (CCRSI) and Career Decision Self-Efficacy Scale (CDSE).

The following are five (5) hypotheses formed in the current study:

H_1a: There is a significant relationship between mental health and career adaptability among pre-university student -athletes.

H_1b: There is a significant relationship between mental health and career optimism among pre-university student-athletes.

H_1c: There is a significant relationship between mental health and career knowledge among pre-university student-athletes

H_1d: There is a significant relationship between mental health and career and college readiness self-efficacy among pre-university student-athletes.

H_1e: There is a significant relationship between mental health and self-efficacy planning among pre-university student-athletes

2. Literature Review

2.1. Career planning and student-athletes

Career planning is an important element in counseling competence in 21st century to assist and enlighten individuals on their life choice when experience difficulty choosing a career. In addition, career planning as part of career development is identified as a core area in career counseling competence (Niles & Harris-Bowlsbey, 2017). Sport career has short professional timeframe and is very competitive. Some sports like badminton, tennis, swimming, diving, and athletics are open to a limited number of persons. These sports careers span are very short periods and they are required to transition to a new life, either working or pursuing next level of education at a young age; this may lead to depression, self-doubt and other difficulties during this transition of life (Surujlal, & Van Zyl, 2014). Thus, upon pre-university student-athletes finish their pre-university, is it time to retire from sports and what will they do with the rest of their lives? Athletes are often faced with these sorts of concerns.

Career counselors who are educated and trained in practicing the relevant knowledge and skills are needed to guide and assist students to developing and maintaining

positive psychological, emotional, and physical well-being and the ability to make decision without undue influences from others (Ching & Ng, 2010). Career counseling provides awareness and knowledge through career planning. In the process of planning, career optimism plays an important role related to the likelihood of positively indulging in positive career planning and being able to resist temptation, face challenges and be willing to endure to ensure the success of their planned career (Charokopaki & Argyropoulou, 2019).

During planning for future career, concerns regarding the future, readiness and the capacity to face the future demands in the career market is an important competencies; these career expectations are related to career adaptability (McIlveen et al., (2013). In addition, in the interconnection of career optimism and career adaptability, knowledge is key and enable student-athletes to be prepared for their career and their future life (Stambulova, Ryba & Henriksen, 2019).

School is an important place for students to unearth and discover their potential. According to Mann et al. (2020), career success is consistent with the student's success in school or college. The career and college readiness self-efficacy in the current research is to examine pre-university student-athletes' career readiness as well as college readiness in a basis of understanding their college and career situations as part of the career planning. Along with career optimism, career adaptability, career knowledge, college and career readiness, self-efficacy planning is included in the current study, planning is not an easy task for student-athletes, especially for pre-university student-athletes; this is because they strive harder to balance their academic and athletic year ((Healy, Ntoumanis, & Arthur, 2020). To illustrate the self-efficacy planning in the current study, Career Decision Self-Efficacy Scale (CDSE)-Planning construct is adopted.

Career planning serves as a helping hand in assisting clients to understand about career and also provide information about the career activities and career guidance for direction, it is a process involving thinking and talking about career (Jouber & Crous, 2005). Based on Career Future Inventory (CFI), career optimism, career adaptability, career knowledge are derived. According to the definition of the instrument's developer, Rottinghaus, Day, & Borgen, (2005), career optimism is defined as an individual's mentality of expecting the best possible outcomes pertained to his/her career planning; career adaptability is explained as an individual's perception of his or her ability to cope, adapt and recover to the unforeseen events that alter career plans; career knowledge is referred as the understanding and perceptions towards the job market and employment trends in the respective interest. Meanwhile, Career and College Readiness Self-Efficacy Inventory (CCRSI) and Career Decision Self-Efficacy Scale (CDSE) were adopted to serve as readiness in making successful planning and to measure the pre-university student-athletes preparedness in achieving the career planning respectively.

2.2. Mental health and student-athletes

Mental health is the epidemic of the 21st century and will become the next big global health challenge (Lake & Turner, 2017). For so many years this phenomenon has been taken for granted and non-existence due to many who do not have the basic knowledge (Henderson, et.al., 2013). Any abnormal behaviors among children and adolescents tend to be regarded as deviance and rebellion by most adults. These students need guidance and a clear understanding of their future in sports schools. For this, counseling is necessary. Counselors must be a significant part of the program in assisting the students for planning their career, helping them with their personal psychological and emotional issues, including their social ones. Career planning can prepare them for their life after becoming active athletes or active sportsmen or women or if they fail to achieve their dream. Through counseling they can transfer their athletic and sport talents to life skills (Hinkle, 1994). They will have a meaningful function to society and at the same time, they can have a career related to their expertise. If this is not taken care of, we are doing injustice to these "special and talented minorities".

As far as the current situation is concerned, the invasion of the Coronavirus Disease 2019 (Covid-19) is a pandemic with staggering impacts on the global economy, public health and security, and education. In the education sector, student safety and mental health are the utmost important issues (Sulaiman, et.al., 2021). Sports schools are forced to close; indirectly, student-athletes are forced to take a break from training or physical activity until further notice as the Covid-19 have changed the learning and planning in education. These changes affect the mental health of the students in any learning institutions due to school activities could be described as increased screen time but decreased in physical activity. The changes in the school activity's structure led to a decline in mental health among youth (Shepherd, et.al., 2021; Razali et al., 2022).

Mental health is a state which if lacking is called mental illness. To prevent the onset of mental illness, self-awareness, and positive emotions, outlook, emotions or mindset in any stressful environment or stressful situation play an important role in representing good mental health (Galderisi, et.al., 2015). Thus, mental health in this study is defined as the status of students' positive or negative effects on their sports training and competition.

Often student-athletes become stressful, in which the stressors affect the psychological well-being, with worse scenario leading to more severe mental health issues (Fogaca, 2019). The inner part of the student-athletes is the crucial because humans are influenced, driven and dictated by their psychological, emotional and social values (Robinson & Minikin, 2012). Psychological well-being is the commonly related to negative impact to academic as well as functioning

performance. By the same token, the finding of the study is significant to the purpose of exploring the possibility of integrating the relationship between psychological well-being and career planning as an integral part of understanding student-athletes (Loevass, et. al., 2020). In addition to the current situation, athletes are in an alarming situation to more complex mental health or emotional related issue, as they are lacking coping strategies related to emotional well-being (Ong & Tan, 2014; Colagrai, et.al., 2022). Concurrently, in regards to the social well-being, student-athletes face lots of social challenges/stressor in involving in sport; as a response, they are reacting to cope with these stressors in various ways they think suitable (Tamminen, et al.,2012). In view of the situation mentioned, this study aims to look at the significance of mental health and career planning playing by investigating the relationship of related variables.

2.3. Theoretical Framework

In this research, career planning is presented as pre-university student-athletes' career optimism, career adaptability, career knowledge, career and college readiness self-efficacy and self-efficacy planning needed to be career-ready upon high school sports life graduation. The theoretical framework of the present study is derived from Social Career Cognitive Theory (SCCT) and Cognitive Information Processing Theory (CIP), with SCCT for career planning and CIP for mental health respectively.

In the context of the present study, SCCT was applied to determine the student-athletes career planning. The core foundation of SCCT for career counseling is the career development readiness, therefore, individuals plan career choices based on their background (e.g., family factors), academic experiences, and other factors that influence self-efficacy and career outcome expectations (Betz, & Luzzo, 1996). Nonetheless, the current study was to determine the relationship between mental health and career planning.

Social Career Cognitive Theory (SCCT) was developed by Lent et al. (1994) based on the Bandura's Social-Cognitive Theory (2014). The theory of SCCT is the core foundation career development readiness that includes: i) career interest and development; ii) career choice; and, iii) career success achieved (Lent et al., 2002). Over the years, SCCT has been applied in various disciplines and is expected to shed light on the exploration of career planning issues among student-athletes. First of all, SCCT have been used in various setting, such as engineering student (Hartman & Hartman, 2008), medical student (Kilminster, 2007), and science students in the field of counseling especially in exploring their career planning through the lens of SCCT (Foley & Lytle, 2016; Chan et al., 2018; Wendling & Sagas, 2020), Secondly, in the field of sports, a past research conducted in Asia, South Korea, SCCT attempted to outline the impact on career development (Nam & Marshall, 2022); however, in a

past research conducted in the West, SCCT served as a theoretical framework to investigate the post-athletic career planning of college athletes. The current study applies SCCT as the theoretical framework to examine the current career planning of student-athlete from pre-university level.

In addition, SCCT promotes that an individual's choice based on motivation from oneself or others, and self-efficacy in decision making and problem solving to increase expectations for themselves (Casas & Blanco-Blanco, 2017; Chan, et.al., 2018). The structured form of SCCT can help organize all the relevant information in a sequential setting for better understanding through CaTERI by the measurement of career adaptability (motivation from oneself or others), career optimism (motivation from oneself or others), career knowledge (motivation from oneself or others), career and college readiness self-efficacy (self-efficacy in decision making), as well as self-efficacy planning (problem solving).

Apart from this, the theory to explain mental health in the current study is CIP, which was developed by Sampson, et al., (2020) discussing about human beings having a special capacity to internalize, interpret and store various types of information that they experience and encounter in their lives. As supported by Hayden et al. (2023), Cognitive Information Processing theory (CIP; Sampson et al., 2020; Sampson et al., 2004) accounts for the interconnected elements of career and mental health. Thus, mental health is the variable to study its relationship with the career planning among Malaysian pre-university student-athletes. CIP was applied in explaining the progress of problem-solving and the reactions and interactions between information processing system; for instance, the problem solver reacts to the task environment and represents the situation in terms of problem space, the way the problem is perceived by the problem solver. Information processing system, task environment and problem space lead to problem-solving behavior as the outcome of the process. The context of the current study focuses on the interaction of the information processing system, the mental health issue and how Malaysian pre-university student-athletes perceived the mental health problems within their personal environment , such as family environment, and school environment.

These include positive and the negative memories that live with the individuals and somehow influence their perceptions, beliefs, thought, behaviors and worldviews that can be beneficial or detrimental the individuals' future life endeavors. In a nutshell, CIP explains the relationship between mental health and career planning among student-athletes. CIP has been applied in various disciplines, and using the theory in the present study seems appropriate and beneficial for the purpose of the study. Figure 1 demonstrates the research framework of this study supported by these theories.

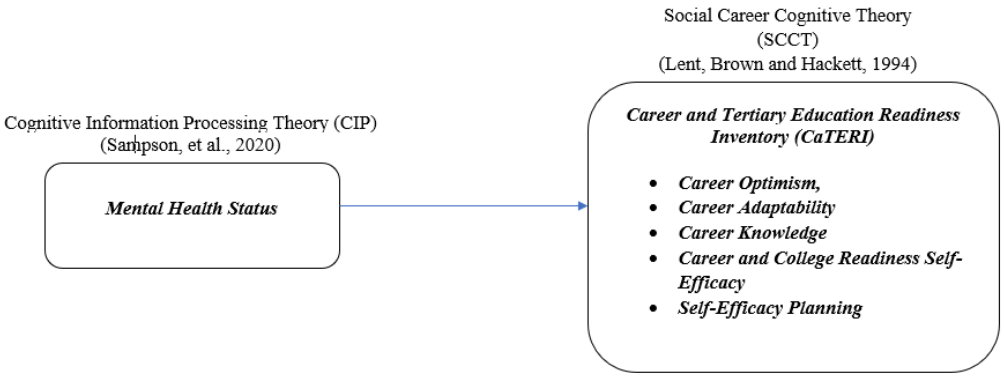

Figure 1: Theoretical framework of the study linking mental health and career planning

3. Methodology

3.1. Research Design, Population and Sampling

This study was conducted in a quantitative manner and descriptive-correlational research design was employed. Correlational research is more suitable in the current study because the researcher is interested in investigating the relationship between independent variables (mental health) and dependent variables (career planning). Survey questionnaires were used to collect data for analysis with some adapted instruments according to the target population (pre-university student-athletes) in Malaysian sports schools.

There are two categories of sport schools—the national sport schools and the state sports schools—with a total of 20 sports schools in Malaysia. These schools are selected as the schools are established to groom students who have shown strong achievements in certain sports with the aspiration of producing the country's top sportsmen or women in various sports. In a long run, they would be the powerful driving force to ensure the sustainability of the sports programs to seek potential sports talents for the country in the future.

The target population is pre-university student-athletes because they are considered to be senior students with more experience in professional professions in sports. Therefore, their career planning opinion is important to find out. The cluster sampling method was used to select potential respondents. This sampling method involves dividing the population into smaller subgroups known as clusters; however, clusters are formed based on common characteristics shared by the target population, such as age (Hayes & Westfall, 2020). Cluster sampling method is a two-step sampling process, therefore, 20 sports schools are the 20 clusters; the second step of the sampling process divided the sports school based on zones. To randomize, the researchers selected the clusters through fishbowl method. In the current research,

the researchers applied the Raosoft sample size calculator in addition to Cochran, (1977) to determine the minimum sample size, in which the recommended size was 362 students.

An average number from each school is obtained from the Ministry of Education Malaysia officer—150 form 4 student-athletes and 150 from 5 student-athletes. Hence, estimating a total of 300 form 4 and form 5 student-athletes per school, the population size is 20 x 300 = 6000 student-athletes. Hence, according to Guwahat, (2013), Cochran's sample size formula (1977), the sample size is 361, while the Raosoft sample size calculator was 362 student-athletes needed to be recruited. However, as the target population for the current study was student-athletes, the sample size increased by 10% to compensate for expected dropouts and incomplete records to avoid the possibility of rejection (Andrade, 2020; Martínez-Mesa, et.al., 2014). Thus, the researchers end up recruiting 397 Malaysian pre-university student-athletes. In this study, the data collected in number also known as hard data for the quantitative research design (Neuman, 2007).

In short, data collection took the form of school visits, as this method ensured a high response rate and low researcher bias in the data (Oppenheim, 2005). With the help of the student-athlete guardian (teacher or coach), the target student-athletes were identified. Prior to the questionnaire distribution, the researchers introduced themselves and mentioned names, research institutions, research title, and informed consent forms to student-athletes to ensure participating student-athletes were aware that their information would be kept confidential and that their responses would be used only for intended academic purpose. All questionnaires were returned to the researcher after completion, and the researcher immediately clarified inquiries about the scales throughout the questionnaire. Throughout the school visit, the student-athletes guardian (teacher or coach) works together to ensure that the data collection process is safe and controlled.

Once the student-athletes completed the self-administered questionnaire, the questionnaires were collected and finally the data were entered into SPSS for analysis.

3.2. Instrumentation

This study used existing instruments highly used by researchers. These questionnaires were tailored to fit the target population—student-athletes. A researcher-adapt instrument is also developed based on relevant and well-established career counseling instruments. The full instrument is in Appendix.

Instrumentation is an important process in developing an appropriate instrument in measuring the investigating problems or issues of the study (Fraebkel et al., 2016); thus, Mental Health Continuum-Short Form (MHC-SF) and Career and Tertiary Education Readiness Inventory (CaTERI) are relevant to help identify the mental

health status of the youth. MHC-SF is the instrument measuring the mental health level of the pre-university student-athletes, however, mental health to measure stress, depression or anxiety is too common and well-being is equipping people to learn well, work well, manage one-self and make plans for live and contribute to their communities (World Health Organization [WHO], 2022), therefore, MHC-SF is employed in the current study. Additionally, CaTERI in the current study is the instrument used to measure student-athletes career planning through adaptations. The researchers gather several instruments that relate to career counseling such as Career Decision-Making Difficulties Questionnaire, Career Future Inventory, Career Factors Inventory, Career Decision Scale, Career Decision Self-Efficacy Scale (Short-form); after reviewing the instrument manual, the age range as well as the constructs, hence, adoption of (CaTERI) is form. CaTERI adopts from several well-established career counseling instruments, which is from Career Future Inventory (CFI), Career and College Readiness Self-Efficacy Inventory (CCRSI) as well as Career Decision Self-Efficacy Scale (CDSE).

The instruments adopted and adapted by the researcher in this study are tailored to specific groups of respondents who are pre-university student-athletes. This is important because the study involves a wide spectrum of variables that are related to the focus issue of the study.

Table 1 Career and Tertiary Education Readiness Inventory (CaTERI)

Instrument	Constructs adapted	Items related to CaTERI	Source
Career Future Inventory (CFI)	Career Adaptability	11	Patrick J. Rottinghaus (2000, 2008)
	Career Optimism	11	
	Career Knowledge	3	
Career and College Readiness Self-Efficacy Inventory (CCRSI)	All	14	Stanley B. Baker & Sejal Parikh Foxx (2012)
Career Decision Self-Efficacy Scale (CDSE)	Planning	10	Nancy Betz & Karen Taylor (2001)
	TOTAL	**49**	

3.3. Pilot Study

The pilot study would be employed to access CaTERI's before the actual pilot study is carried out. In the current study, the researcher used Malay language as a medium in the questionnaire instrument for the purpose of data collection. The instruments were originally developed in English Language, which was translated into Malay language. Thus, the back-to-back translation method is implemented in order to

validate the instrument, this process is important because it aims to increase the effective understandings for the student-athletes who participate in the current study (Miyabe & Yoshino, 2015).

The reliability of the instruments used were tested. The 14-item MHC-SF is derived from the 40 items of Mental Health Continuum- Long Form (MHC-LF). According to Keyes (2005), MHC-SF has shown excellent internal consistency (>.80). Whilst, the internal consistency for CaTERI ranged from .7 to .9. and respectively: .85 for career adaptability, .87 for career optimisms, .73 for career knowledge, ,85 for career and college readiness self-efficacy and .92 for self-efficacy planning based on the past studies (Baker et al., 2016; Buyukgoze-Kavas, 2014; McIlveen, Burton, & Beccaria, 2013).

The validity of the instruments used is very crucial. It refers to how far the instrument is measuring what are to be measured with precision (Ary et al., 2006). To ensure this, all items designed must be in line with the objectives of the study. Failing to do so lead to the data collected not suitable with the analysis that are carried out. Consequently, it caused errors in the results of the study which means they are not answering the questions objectively and correctly. athletes who participate in the current study (Miyabe & Yoshino, 2015). Language validation was involved to evaluate the content of the translation instrument, thereafter, content validity invited experts in counseling, sports and statistics to evaluate the subject matter as well as the measurement scale. Thirty set of the instruments was sent to form 4 and form 5 students with the purpose of analyse them meanwhile comments section was provided in the sets of the instrument to gain their level of the understanding towards the meaning and wording of instruments. Lastly, reliability was obtained using the Cronbach alpha. Through the current pilot study, the MHC-SF as well as CaTERI respectively show the Cronbach's alpha value of .857 and .827 (Table 2).

Table 2: Cronbach Alpha Instruments

	Cronbach's Alpha	**N**
Mental Health Continuum- Short Form (MHC-SF)	.857	14
Career and Tertiary Education Readiness Inventory (CaTERI)	.827	49

3.4. Data Analysis

The study analyzed the data using SPSS version 25, in which data cleaning was performed prior to the actual data analysis. Descriptive analysis was conducted via coded and transferred data files. Frequency distribution was used to list the number of responses received from each questionnaire; this method transfer the raw data into

grouped. The grouped data was run using the Pearson correlation between independent variable—mental health—and dependent variable—career planning—to examine the relationship between pre-university student-athletes.

4. Research Findings

The respondents in the current study are pre-university student-athletes. Table 3 describes the demographic information of 389 student-athletes'. There are 174 student-athletes (44.7%) aged at 16 and 215 student-athletes (55.3%) who aged of 17 participated in this current study. A total of 220 (56.6%) are male respondents and 169 (43.4%) female. Malaysia is a multicultural country, therefore, respondents involved in the current study include 304 Malay student-athletes (78.1%), 11 Indian student-athletes (2.8%), 38 Chinese student-athletes (9.8%) and 36 student-athletes from other races (9.3%). Furthermore, Malaysia has two (2) types of sports schools—is National Sports School and State Sports Schools. Student-athletes who participated in the current study from National Sport Schools are 185 students (47.6%) and State Sports schools are 204 students (52.4%).

Table 3: Frequency Distribution for Demographic Background Information (From, Gender and Race) (N=389)

Demography Background	Category	Frequency (N)	Percentage (%)
Age	16 years old	174	44.7
	17 years old	215	55.3
Gender	Male	220	56.6
	Female	169	43.4
Race	Malay	304	78.1
	Indian	11	2.8
	Chinese	38	9.8
	Others	36	9.3
School Type	National Sports School	185	47.6
	State Sports School	204	52.4

The aim of the current research is to determine the relationships between pre-university student-athletes' mental health and career planning, in which the Pearson correlation test was used to test the research hypotheses. The findings of the correlation between the tested variables are shown in Table 4.

Table 4: Pearson Correlation between Mental Health and Career Planning

Variables		Mental Health	Hypothesis result
Career Adaptability	Pearson Correlation	.351**	Hypothesis Accepted
	Sig. (2-tailed)	.000	
	N	389	
Career Optimism	Pearson Correlation	.351**	Hypothesis Accepted
	Sig. (2-tailed)	.000	
	N	389	
Career Knowledge	Pearson Correlation	.331**	Hypothesis Accepted
	Sig. (2-tailed)	.000	
	N	389	
Career and College Readiness Self-Efficacy	Pearson Correlation	.351**	Hypothesis Accepted
	Sig. (2-tailed)	.000	
	N	389	
Self-Efficacy Planning	Pearson Correlation	.483**	Hypothesis Accepted
	Sig. (2-tailed)	.000	
	N	389	

**Correlation is significant at the 0.01 level (2-tailed)

Based on Table 4, the relationships between mental health and career adaptability, career optimism as well as career and college readiness self-efficacy were tested using Pearson product moment correlation coefficient, according to the results (r = .351; p= .000). This indicated that there were low positive relationships between mental health and career adaptability, career optimism as well as career and college readiness self-efficacy. In short, the result also explain positive mental health of the students is linked with increase the Career Adaptability among Malaysian pre-university student-athletes. Therefore, the research hypotheses H_1a, H_1b, H_1d are accepted.

Similarly, Pearson product moment correlation coefficient applied and the result shows the relationships between mental health and career knowledge was at r = .331, p= .000, indicating that there were low positive relationships between the two variables. The result positive mental health of the students is linked with increase in the career knowledge among Malaysian pre-university student-athletes. Therefore, the finding accepted H_1c.

The relationship between mental health and self-efficacy planning were tested using Pearson product moment correlation coefficient. Results indicated that there were moderate positive relationships between the two variables, r = .483, p= <. 01. Positive mental health of the students improves the planning among Malaysian pre-university student-athletes. Therefore, the finding accepted H_1e.

5. Discussion and Implications

5.1. Discussion

Mental health is an integral component of health and well-being underpinning our ability to form relationships and shape the world we live in (World Health Organization, 2022). The relationships between mental health and career adaptability found a low positive relationship. Career adaptability indicates an individual's perception of his or her ability to cope, adapt and recover from the unforeseen events that alter career plans (Rottinghaus et al., 2005). Xu, et. al., (2020) found that mental health is negatively correlated with depressive symptoms such as anxiety, loneliness, self-blame, allergic tendencies, physical symptoms, phobic tendencies and impulsive tendencies. This is consistent with the current study as mental health in the current study defined as flourishing and therefore, career adaptability of Malaysian pre-university student-athletes is positively related to mental health.

Besides, career optimism is defined as an individual's mentality of expecting the best possible outcomes pertained to his or her career planning (Rottinghaus et al., 2005). Based on the findings, the relationships between mental health and career optimism found a low positive relationship. Mental health is rarely linked to other populations of interest, such as in career counseling (Kegelaers, et. al, 2022). Therefore, in the current findings, a positive relationship between mental health and career optimism indicating career optimism among the pre-university student-athletes towards the future are important for understanding the vulnerability to mental healthiness (Conversano, 2010).

Career knowledge is referred as the understanding and perceptions towards the job market and employment trends in the respective interest (Rottinghaus, Day, & Borgen, (2005). Based on the results, there was a low positive relationship between mental health and career knowledge. Athletes commonly hide their mental health to pretend they are a strong athlete, as well as not to seeking for help; thus, they have limited knowledge about their sport career and other career possibilities associated with their sport career (Schinke et al., 2017). Therefore, the positive relationship between mental health and career knowledge suggested that positive mental health would improve the career knowledge among student-athletes.

The relationships between mental health and career and college readiness self-efficacy indicated that there were low positive relationships between the variables. The mental health of student-athletes should not be overlooked because mental health can deeply affect student-athletes' readiness during the transition period, such as life after high school (Purcell, et al., 2019; Alimbekova, et.al, 2016). Therefore, the result obtained from the current study suggested that positive mental health would increase the career and college readiness self-efficacy among student-athletes. The relationships between mental health and self-efficacy planning indicated that

there was a moderate positive relationship between the variables. Self-efficacy planning is very important for student-athletes as they gain the life balance of "training" to be not only physically fit but also mentally fit to become top athletes. Effective planning assists student-athletes to stay on track to achieve a greater goal as planned while reducing languishing mental health conditions among student-athletes (Adam & Blair, 2019; Gomez, et.al., 2018) consistent with current study findings that suggest positive mental health leads to a higher self-efficacy planning for student-athletes in terms of career planning.

5.2. Implications

The researchers highlight that it is vital to identify the mental health status of student-athletes as a screening measure to assess and identify the appropriateness and need for intervention strategies to the student-athlete (Sullivan et. al., 2019). The shift in learning lessons from face-to-face to online mode during the Covid-19 lockdown involving all students including student-athletes forced the transition away from sports, leading to a poor mental health (Knowles, et. al., 2021). Thus, the present study responds to the critical need to increase research awareness concerning mental health among this sample group.

This study has benefits for various groups including students, counselor, parents and teachers. The findings showed that mental health among student athletes significantly correlate with career-related aspects, which further support knowledge in career counseling, especially career planning. In terms of career planning in the Malaysian context, the awareness is considered at a medium to low level; therefore, the results based on the current study provides some practical applications for counselors working with pre-university student-athletes by reviewing the special circumstances that student-athletes face. This includes assessing their mental health level during counseling sessions for career planning considerations (Wong & Baki, 2020). Mental health issues potentially jeopardize the student athletes' sports performance (Bradley, et. al.,2019; Sato, et. al., 2023), in connection with the sports performance. Thus, identifying student-athletes' mental health status is crucial, necessitating collective roles of teachers, coaches and parents in boosting their sport performances and encouraging the development of adaptive behaviors. It is important that student-athletes receive proper and adequate guidance and exposure to relevant resources and knowledge during their pre-university level to prepare them for their future. Direct guidance from authoritative, respected, and close figures such as teachers, coaches and parents can help students develop a better understanding of mental health support them in their lives after they retire as active athletes or active sportsmen or women, or risk failing to achieve their dreams.

6. Conclusion and Recommendations

This quantitative study found that mental health significantly correlate with career-related aspects among pre-university student athletes. The findings were derived from Pearson correlation, reporting significant values for the relationships between mental health and career planning among the Malaysian sample group. The variables were tested based on the Mental Health Continuum-Short Form (MHC-SF) and Career and Tertiary Education Readiness Inventory (CaTERI). The constructs in CaTERI, which is a researcher-adapt instrument, were defined based on selected instruments to test career adaptability, career optimism, career knowledge, college and career readiness self-efficacy and self-efficacy planning. These findings were discussed, where the authors argue that it is urgent to identify the mental health status from the student-athletes as an effort to screen and assess the appropriate need for intervention to the student-athlete.

Results indicate a better understanding in positive expectations regarding the student-athletes' future and mental health. The result obtained found and provides a new insight regarding to the Malaysia pre-university student-athletes are having better responding to their mental health and the career adaptability, career optimism, career knowledge, career and college readiness self-efficacy and self-efficacy planning. When student-athletes are unable to focus, all training and coaching becomes meaningless, which in turn jeopardizes sport aspirations. In this case, it is very unfortunate because we have assets full of potential, but are open to emotional instability and weakened performance. Based on the results of the current study, student could realize and understand the connection between sports and mental health and linked with developing socio-emotional learning which facilitates in developing sports aspiration so they would have better career plan (Smith, 2020; Mercader-Rubio & Ángel, 2023). Nevertheless, among the career planning construct, mental health and self-efficacy planning had moderate relationship, while career optimism, career adaptability, career knowledge and career and college readiness self-efficacy indicated low positive relationship. This indicated Malaysian pre-university student-athletes is better in earning a life balance of "training" to be not only physically fit but also mentally fit to planning to become top athletes (Adam & Blair, 2019).

Nonetheless, the present study was conducted quantitatively, thus, it is recommended that qualitative research methods such as focus group discussion and interviews be considered in future studies. Additionally, recommendation of the further research could attempt exploring the influence of personal and institutional background. Future studies could consider causality by conducting experimental research designs to explore more causal relationship. Furthermore, pre-university's student-athletes are relatively under-researched, and most studies have paid less attention to career planning proposition (Robertson, 2013). In this regard, it is recommended that future research consider conducting more studies on student-athletes from other education level.

Appendix

Research instrument

Demographic information

Please fill the blank and tick (/) in the box provided. Thank you

1. Email:

2. Date of Birth:
   ___ ___ / ___ ___ / _____ [DD/MM/YEAR]

3. Gender:
   - Male
   - Female

4. Race:
   - Malay
   - Indian
   - Chinese
   - Others: _____ (Please specify) (Please specify)

5. Type of school
   - National Sports School
   - State Sports School

6. School name: _____

Mental Health Continuum- Short Form

INSTRUCTIONS: Please read each statement and circle a number 1, 2, 3, 4, 5 or 6 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

Place a checkmark in the box that best represents experiences and feelings DURING THE PAST MONTH.

		Never	Once or Twice	About Once A Week	2 or 3 Times A Week	Almost Everyday	Everyday
1	Happy	1	2	3	4	5	6
2	Interested in life	1	2	3	4	5	6
3	Satisfied with life	1	2	3	4	5	6
4	That you had something important to contribute to society.	1	2	3	4	5	6
5	That you belonged to a community (like a social group, school, neighborhood, etc.).	1	2	3	4	5	6
6	That our society is a good place, or is becoming a better place, for all people.	1	2	3	4	5	6
7	That people are good.	1	2	3	4	5	6
8	That the way our society works made sense to you.	1	2	3	4	5	6
9	That you liked most parts of your personality.	1	2	3	4	5	6
10	Good at managing the responsibilities of your daily life.	1	2	3	4	5	6
11	That you had warm and trusting relationships with others.	1	2	3	4	5	6
12	That you had experiences that challenged you to grow and become a better person.	1	2	3	4	5	6
13	Confident to think or express your ideas and opinions.	1	2	3	4	5	6
14	That your life has a sense of direction or meaning to it.	1	2	3	4	5	6

Career and Tertiary Education Readiness Inventory (CaTERI)

This questionnaire assesses critical factors for people considering career transitions. You will be asked a series of questions regarding your current thoughts and feelings about how you plan your career. Please answer the following items as honestly as you can. There are no right or wrong answers. Read each statement carefully, then use the following scale to indicate how strongly you agree or disagree with each statement:

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I get excited when I think about my career.	1	2	3	4	5
2	I am eager to pursue my career dreams.	1	2	3	4	5
3	I am unsure of my future career success.	1	2	3	4	5
4	Thinking about my career frustrates me.	1	2	3	4	5
5	It is difficult to relate my abilities to a specific career plan.	1	2	3	4	5
6	I understand my work-related interests.	1	2	3	4	5
7	I do not understand job market trends.	1	2	3	4	5
8	I can overcome potential barriers that may exist in my career.	1	2	3	4	5
9	It is difficult for me to set career goals.	1	2	3	4	5
10	I am not in control of my career success.	1	2	3	4	5
11	I tend to bounce back when my career plans do not work out quite right.	1	2	3	4	5
12	I am rarely in control of my career.	1	2	3	4	5
13	Thinking about my career inspires me.	1	2	3	4	5
14	My efforts will determine my career success.	1	2	3	4	5
15	I will make the right decisions in my career.	1	2	3	4	5
16	I enjoy trying new work-related tasks.	1	2	3	4	5
17	I am good at adapting to new work settings.	1	2	3	4	5
18	I can adapt to changes in my career plans.	1	2	3	4	5
19	It is hard to discover the right career.	1	2	3	4	5
20	Others would say that I am adaptable to change in my career plans.	1	2	3	4	5
21	I will adjust quickly to shifting demands at work.	1	2	3	4	5
22	I can adapt to change in the world of work.	1	2	3	4	5
23	Planning my career is a natural activity.	1	2	3	4	5
24	I am good at understanding job market trends.	1	2	3	4	5
25	It is easy to see future employment trends.	1	2	3	4	5
26	I know how post-high school education can help me achieve my life and career goals.	1	2	3	4	5

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27	I believe I can succeed in the right post-high school education situation.	1	2	3	4	5
28	I know and understand the post-high school education application process.	1	2	3	4	5
29	I know how to get the post-high school information I need.	1	2	3	4	5
30	I know how to get the financial aid needed for a post-high school education.	1	2	3	4	5
31	I know how to set goals for myself.	1	2	3	4	5
32	There are important, influential persons in my life who believe in me.	1	2	3	4	5
33	Other persons can help me achieve my goals.	1	2	3	4	5
34	I know how to read a textbook successfully.	1	2	3	4	5
35	I know how to prepare for a test successfully.	1	2	3	4	5
36	I know how to take class notes successfully.	1	2	3	4	5
37	I know how much pay it takes to make a good living for someone's work.	1	2	3	4	5
38	I have confidence living a good life 10 years from now.	1	2	3	4	5
39	I know about the various ways to pay for post-high school education.	1	2	3	4	5

		No Confidence at All	Very Little Confidence	Moderate Confidence	Much Confidence	Complete Confidence
40	Make a plan of your goals for the next five years.	1	2	3	4	5
41	Determine the steps you need to take to complete your chosen major.	1	2	3	4	5
42	Prepare a good resume.	1	2	3	4	5
43	Get letters of recommendation from your professors.	1	2	3	4	5
44	Get involved in a work experience relevant to your future goals.	1	2	3	4	5
45	Find and use the Placement Office on campus.	1	2	3	4	5
46	Decide whether or not you will need to attend graduate or professional school to achieve your career goals.	1	2	3	4	5
47	Plan course work outside of your major to help you in your future career.	1	2	3	4	5
48	Identify employers, firms, institutions relevant to your career possibilities.	1	2	3	4	5
49	Successfully managed the job interview process.	1	2	3	4	5

Funding

This research is under *Geran Insiatif Putra Siswazah* (GP-IPS) funded by *Universiti Putra Malaysia*. The grant number is UPM.RMC.800-3/3/1/GP-IPS/2020/9690000.

Acknowledgments

We would like to express our gratitude to the *Geran Insiatif Putra Siswazah* (GP-IPS) funded by Universiti Putra Malaysia. The grant number is UPM.RMC.800-3/3/1/GP-IPS/2020/9690000. We acknowledge the Malaysia Sports School and Sports Academy, Universiti Putra Malaysia for helpful contributions. We also thank the participant who participated in this study.

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