INDONESIAN SPORT CLIMBING ATHLETE WOMEN'S CAREER VIEW FROM PERSPECTIVE OF MENTAL HEALTH

Mela Aryani¹*, Berliana Rahely², Komarudin², Dede Rohmat Nurjaya²

¹Department of Sports Education, Postgraduate School of Indonesian Education, Indonesia; ²Indonesian Education University, Indonesia

Abstract

The participation rate of women in masculine sports such as rock climbing is lower than men, because they consider themselves could not compete with men. There are several studies that investigate mental health related to gender, but there are limited studies related to rock climbing by female athletes. The objective of this study was to obtain concrete data regarding the careers of female athletes in Indonesia from a mental health perspective. This study used qualitative research with case study method. The respondent in this study was one female athlete who had gained international achievements as a snowball sampler, and the higher number of respondents were male coaches, head coaches, psychologists and parents of female athlete, which configurated a triangulation of respondents. The instruments included observation, open interviews, and documentation. The results of this research show that: (1) female athlete could increase their carreer and reach the peak of achievement, namely becoming champions in the IFSC Word Cup, (2) mental health significantly influences career and achievements of rock climbing athletes.

Keywords: Career. Mental health. Gender and sport climbing

Introduction

Since long time ago, women have been in careers and participated in sports, but it took a longer time to accept women as sports participants than men (Aryani, Berliana, Komarudin, & Nurjaya, 2023; Nauright, 2014). In the international world, women's participation at the 2016 Olympics in Brazil for masculine sports such as boxing, wrestling, horse riding, judo and rowing was still below 50% (IOC, 2018).

A low participation of women in sport induced the IOC created a gender equality project working group in 2018 which was related to governance and organizational culture/communication, including gender equality and diversity in leadership. Furthermore, the International Olympic Committee (IOC) stated that the Olympic Charter must be guaranteed without discrimination, such as race, color, gender, sexual orientation, language, religion, political or other opinion, national or social origin, property, birth or other status (IOC, 2020). Sports participation turns out to be a place for participants to value and incorporate practices of desirable masculinity (Joseph & Anderson, 2016).

Manuscrito recibido: 06/10/2023 Manuscrito aceptado: 20/10/2023

*Corresponding Author: Mela Aryani, Department of Sports Education, Postgraduate School of Indonesian Education, Indonesia

Correo-e: melaaryani@upi.edu

There are various factors which become as barriers for women's participation in sports, including assumption that sport is an exclusive activity, only dominated by men (Osborne, Skillen, Osborne, & Skillen, 2015), and considered as masculine activity. Berliana stated that opportunities for sports development are dominated by men, which is in line with Indonesian culture that characterize sport as competitive activities which only suitable for men and has masculinity (Berliana, Hamzah, & Messiana, 2021). In sports governance, there is a tendency for men to reject gender balance and reject women by utilizing discourses of meritocracy, neoliberalism, silence/passivity, and difference (Knoppers, Spaaij, Claringbould, & Spaaij, 2021).

Other factor that also play a role in the lack of women's participation in sports is mental health. In recent years, mental health symptoms and disorders among elite athletes have attracted much attention (Cameron, Grano, & Grano, 2023; Gorczynski et al., 2020, Reardon et al., 2019; Vella, Swann, & Tamminen, 2020). Mental health allows individuals to function, cope with stress, perform meaningful work, and contribute to society (Gorczynski et al., 2020). Mental health is a state of mental well-being that enables a person to overcome the stresses of life, realize their abilities, study and work appropriately, and contribute to their community (WHO, 2018). An athlete could get greater psychological pressure compared to ordinary people (Vella, Swann, Tamminen, et al., 2020; Purcell, Rice, Butterworth, & Clements, 2020). This mental health will have an impact on the athlete's career. Previous research investigated mental health based on cultural factors (Gorczynski et al., 2020; Uher & Zwicker, 2017).

There are several mental health studies related to gender (Turgeon et al., 2023), included the relationship between basic psychological needs and mental health of high school student-athletes related to gender, (Cameron et al., 2023), mental health of black female athletes, (Walton et al. , 2021) gender differences in reporting and contributors to mental health symptoms. Gender refers to the socially constructed roles, behaviors, expressions and identities of girls, women, boys, men and people of diverse gender. It influences how people perceive themselves and others, act and interact, and the distribution of power and resources in society. Gender identity is not limited to a binary (girl/female, boy/man) nor is it static; it exists along a continuum and can change over time (Canadian Institutes of Health Research, 2020).

The rapid development of rock climbing internationally has led this sport to participate in multinational Olympic sporting events. In 2021, rock climbing sport was officially be included in the 2020 Tokyo Olympics. Along with the

rapid development of rock climbing sport, the careers of female athletes will also increase, which will have an impact on the mental health of athletes. (Walton et al., 2021) revealed that women had higher levels of mental health symptoms, and lower levels of mental well-being. Women reported had multiple adverse life events at higher rates than men; especially interpersonal conflict, financial difficulties and discrimination. There has been no research investigating the women athletes' careers in masculine sports which are related to mental health. Therefore, the author was interested in investigating the careers of Indonesian women rock climbing athletes from a mental health perspective.

Material and methods

The method used in this research was a case study with a qualitative research approach. Case study research is a qualitative approach which explores real-life, limited systems, through detailed and in-depth data collection involving various multiple sources of information (for example, observations, interviews, audiovisual materials, documents, and various reports), reporting case descriptions and case theme, the unit of analysis can be a multiple case or a single case (Creswell & Creswell, 2018).

In rock climbing sport, several cases that occur in sport field are related to lack of participation of women who were pursuing a career in rock climbing. One of the factors was internal factors of the female athletes, namely mental health. Most women assume that they are not capable to gain the highest achievements and pursuing a career in rock climbing. Female rock climbing athletes in Indonesia are considered few and not represented from every province, but Indonesian female athletes are able to be reckoned in the world by achieving the world's fastest time in the speed word record branch.

Participants

This study was participated by one Indonesian female rock climbing athlete who had won a gold medal in the word cup event, one coach, one head coach, one psychologist and the parents of the female athlete. Data was collected by using triangulation of respondents consisting of female athletes, female coaches and parents. Sampling using snowball sampling started with one athlete and then expanded to six athletes (Figure 1).

- 1. Participants should meet the following inclusion criteria in this study:
- 2. Woman athlete, code (AP), namely speed word record rock climbing

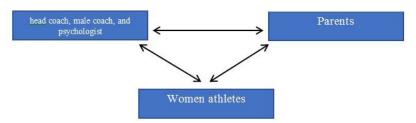


Figure 1: Triangulation of respondent data.

Table 1: Data Initial of participants.

No	Respondents	Initial	Quantity	Note
1	Woman athlete	AP	1	Informant
2	Head coach	PK	1	Informant
3	Male coach,	PL	1	Informant
4	Psychologist	Psi	1	Informant
5	Parents	ОТ	2	Informant

athletes who have gained national and international achievements and have won gold medals in the word cup.

- 3. Head coach (PK), namely female head coach in national training.
- 4. Male coach, code (PL), namely the trainer of the female athlete.
- 5. Psychologist (Psi), namely the psychologist who handle the respondent.
- 6. Parents, code (OT), namely the parents of the female athlete (Table 1).

Instruments

The instruments included observation, interview, and documents. Interview was conducted using semi-structured technique, the author created an instrument grid for female athletes, then developed it during the implementation according to needs. These three instruments were considered as triangulation of instruments that were explored in depth to be a comprehensive instrument. Figure 2 explains the diagram of the triangulation instrument:

Research procedure

In collecting data, researcher initially searched data about the subjects that would be used as research, namely female rock climbing athletes who had won gold medals in the word cup. Based on data, the athlete was in Banten province. Next, asked permission from the athlete whether she was willing to follow this study. Then, a qualitative sampling strategy was conducted using a qualitative approach with case study method and snowball sampling so that the coaches and parents of the female athletes were also studied. So the researcher also asked permission from the two research subjects to obtain the triangulation of respondent data. The author used a cellphone to record, and note to write information. Data was stored in flash disks, email, Google Drive and other communication media so that the data can be stored properly. Then regarding ethical issues, before started the research, author had asked permission politely from the subjects and all parties who were involved and adjusted the times which suitable with the subjects. In order to ensure that data could be collected smoothly, interview was carried out in a comfort place, such as a training field, café and so on. The author also wrote down all events and series of events during the research by writing in notes. There are five steps in qualitative research (Creswell & Creswell, 2018), namely:

- Researchers collected information (observation, interviews, and documentation), observation was carried out for six months starting from July 2022 until January 2023. Interview was carried out by asking several informants regarding who would be the research subject and the results was one of the national training athletes who lived in Banten and had achievements both nationally and internationally.
- 2. The researcher asked participants open-ended questions and prepared field notes, Open questions using semi-structural interviews using the initial basis regarding the career obstacles instrument (Swanson, Daniels, & Tokar, 1996) consists of seven parts and then developed by author according to research needs and adapted to ethical and emic issues. Each interview session lasted three to four hours, for a total of 600 hours. Apart from that, the author also wrote field notes from the beginning until the end of the research series.
- 3. Researchers analyzed data to create themes or categories in order to simplify the process research. The author created coding and memos as

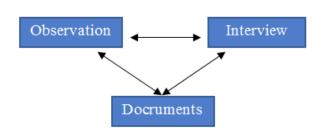


Figure 2: Triangulation instrument.

part of the data analysis step.

- 4. Researchers searched patterns, generalizations, or broad theories from themes or categories.
- $5.\,$ Researchers revealed generalizations and theories from past experience and literature.

Statistical analysis

Statistical analysis started with open questions that support the research question, strategies for approaching the subject, diaries or notes, transcripts, memos, emic ethics, triangulation and coding. The following is an explanation of these steps: (1) Research questions, are included (a) what is the phenomenon of career paths for female rock climbing athletes in Indonesia? (b) How does mental health influence the career achievements of rock climbing athletes? (2) Strategy for approaching the subject. In this study, researcher tried to approach the subject openly. This means that the research openly contacted all subjects to conduct research. (3) Daily notes, Researcher wrote daily notes before the research, to search information related to the research subjects and during the study. Researcher used notes to create transcripts and memos. There were 15 diary entries started from April 10, 2022, searching data related to female athlete and coaches, and entries related to interviewing male athletes from female coaches on December 29, 2022. (4) Transcript, Based on the daily notes that had been written, the researcher created transcript of interviews, observations and documentation as a complete description. The benefit of transcripts is for the development of memos and subsequent qualitative data analysis. Transcript is the main material for qualitative data analysis. Daily record data is in the attachment. (5) Memo, is a note, summary or analysis of data that helps researchers in writing reports. In this research, the memo is a summary and comment on all the research questions that the author asked in the field, both the main question and accompanying questions to the main question. The memos in this research were the results of answers from female coach, male coach, head coach, psychologist, female athletes, male athletes from female coach and parents of female athletes. The memo on this research is attached. (6) Ethical and emic. In qualitative research, a study of ethics and emic is needed. Ethics is a phenomenon that occurs because of old rules, values, knowledge that controls it and emics is a phenomenon that occurs based on the informant's views. In the question about career awards, there are questions related to the circle of life which includes child and parental care, maternity leave. The author did not ask these questions because the female athlete has not married. (7) Triangulation, consists of instrument triangulation, inter-researcher triangulation and respondent data triangulation. triangulation instruments consisting of observations, interviews and documents,

triangulation between researchers consisting of researchers, mentors and supervisors and triangulation of respondent data consisting of coaches (female coaches, male coaches, head coaches, psychologists), female athletes and parents of female athletes. (8) Coding, consist of three types, namely open coding, axial coding and selective coding. In open coding, researchers identified concepts and themes. The concept and theme of this research was the careers of female rock climbing athletes in Indonesia based on a mental health perspective. Axial coding refines, aligns and categorizes the themes in this case into two, namely the careers of female athletes and the influence of mental health on careers. While selective coding is an action that leads to the elaboration or formulation of cases about the phenomenon of career stages of female rock climbing athlete in Indonesia? How does mental health influence the career and achievements of Indonesian female rock climbing athletes?.

Results

The female athlete respondent was born in Tangerang on April 30 1999. The respondent is a leading Indonesian female rock climbing athlete who has joined Pelatnas since 2017 and has won the rock climbing speed word record category both at the national and international levels. Some of the achievements include gold medal at the 2018 Asian Games, a bronze medal at the 2022 Asian Championship Seoul and a gold medal at the 2023 IFSC Climbing World Cup Chamonix and various other achievements. The respondent is currently registered as an athlete at the Tangerang City district, Banten.

The respondent learned rock climbing from her older sister in 2013 when she was 14 years old. Besides that, there was also the influence from her siblings and other relatives. (Berliana et al., 2021). Before taking part in rock climbing, the respondent had experienced in swimming, volleyball and taekwondo. (answers from AP respondent). According to his parents, the respondent always achieved good results in every sport. (answers about sports that OAP respondents have been involved in) Respondent chose rock climbing because it was more challenging and exciting. "Because the sport is challenging, at that time I also participated in volleyball and swimming at school, but in the end because I was introduced to a new sport, rock climbing felt more challenging and exciting. I prefer masculine sports that are more exciting (answer to general question number 1 of AP respondents) Respondents prefer sports that are masculine.

Considering her achievements as a rock climbing athlete, the respondent is also currently working as a functional civil servant at the Ministry of Youth and Sports. Respondent has a very fast career growth in both achievements and work. Starting rock climbing career in 2013, a few months later she got champion, in the same year she became an athlete for Tangerang City, the following year she became an athlete for Banten province and in 2017 he joined as a National Training athlete in preparation for the Asian Games and in 2018 he won a gold medal at the Asian Games. After that, the respondent always joined Pelatnas and together with other Pelatnas athletes took part in world championships. In fact, currently the respondent is one of the most respected female athletes in the world (answer to the question about career awards regarding the career growth of the respondent AP, PK, PL, Psi, OT). She has a goal to take part in the Olympics game and get a medal in the Olympic event. Respondent has a passion in her job as rock climbing athlete (answer to question about the professionalism of AP, PL, OT respondent athletes).

Having a career as an athlete provides several benefits, apart from being a civil servant at the Ministry of Youth and Sports, respondents also get salary, health insurance, bonuses if she wins the competition, various awards from certain agencies, scholarships from schools and university and is better known both in the world of rock climbing and in society, one of which can be seen from her followers on various social media. (see attached answers to career awards questions for respondents PL, AP, OAP). These benefits are included in career awards, namely awards/rewards given by a person or agency for the achievements (Chelladurai and Kerwin, 2017)

In relation to mental health, specifically anxiety, the respondent has moderate anxiety and she can control her anxiety well so that it does not have a negative impact on his performance and according to the psychologist, the respondent's anxiety is not an issue. In terms of managing emotions and controlling anxiety, according to the female athlete, she can manage her emotions and control her anxiety well by telling herself (seft talk) that she is capable to win the competition and doing activities that can control her anxiety, such as playing handball and always calls her mother before competition, according to the coach, the respondent is the type of person who can control herself. The head coach and psychologist also said that the respondent can control herself when competing and she can do it easily. This can be seen from her performance when competing. Respondents rarely make mistakes such as slipping or falling. The results of interviews with all respondents showed the same answers when the researchers observed the respondents directly and this was also proven by the achievement documents written by the female athlete.

Respondent always conduct trainning very hard and has a very high desire

to win. Respondents never felt tired or complained when practicing, even when the respondent had a knee injury or finger injury, the respondent was still enthusiastic about practicing. This is in accordance with research results revealed by (Ong, 2017) which stated that athletes with a higher level of competition were found to have greater task-related motivation than athletes with a lower level of competition. Female athletes have a higher task orientation than male athletes (Anderson & Dixon, 2009; Hanrahan & Cerin, 2009; Ong, 2017). The respondent has an introverted (closed) personality, this is in accordance with a statement by the psychologist (answers about the personality of the Psi respondent athlete). From other psychological factors, respondents have a moderate level of self-confidence. Respondents have supertition (must use tools that are usually used when competing and if they are missing, the respondent will feel anxious) (answer to question about anxiety and self-confidence of respondents PL, Psi, AP, OAP).

Discussion

Fite & Bloom, (1985) yang menyatakan bahwa secara umum para atlet tingkat dunia memerlukan waktu setidaknya 10 tahun untuk mencapai prestasi puncak. Selain membutuhkan waktu yang lama, atlet juga harus berlatih dengan sungguh-sungguh dan berkesinambungan (Durand-bush & Salmela, 2010). Careers of female rock climbing athletes showed improvement. She started as a rock climbing athlete at a club, then took part in the Tangerang city athlete selection and finally became a Tangerang city athlete. Several months later she took part in the selection to become a regional athlete, namely Banten province and became part of it. Then, she took part in national competitions and she was selected to become national athletes. Now the respondent is part of the national athletes and starting from 2017 has joined as an athlete at the Indonesian National Training Center. Becoming an athlete with world achievements is not easy, it takes at least ten years to do it. This is in accordance with other research (Bompa & Buzzichelli, 2015; Durand-bush & Salmela, 2010; Fite & Bloom, 1985) who stated that in general world-level athletes need at least 10 years to reach peak performance. Apart from that, athletes also have to train seriously and continuously (Durand-bush & Salmela,

Regarding her achievements in rock climbing, the Indonesian government also gave awards in cash bonuses and house renovations in 2018. Apart from that, she also got jobs as functional civil servants (PNS) at the Ministry of Youth and Sports. After she is no longer active as an athlete, she has worked for the government. The Indonesian government gave awards for the achievements of its athletes (Sports, 2022). This is in accordance with the career award theory (Chelladurai and Kerwin, 2017).

She has big dream was to become an Olympic athlete, which can be observed from actively involving in training. She never felt tired or complained when practicing, even she had a knee injury or finger injury, and was still enthusiastic about practicing. This was in accordance with other study results revealed by (Ong, 2017) which stated that athletes with a higher level of competition had greater task-related motivation than athletes with a lower level of competition. Female athletes have a higher task orientation than male athletes (Anderson & Dixon, 2009; Hanrahan & Cerin, 2009; Ong, 2017).

Mental health has an important role in athletes' achievement. An athlete experiences greater psychological pressure compared to ordinary people (Purcell, Rice, Butterworth, & Clements, 2020; Vella, Swann, Tamminen, et al., 2020), this mental health has an impact on his career. Athletes who have good mental health, being able to control their anxiety, will have optimal performance compared to athletes who have high anxiety. Symptoms of mental health disorders include sleep disorders, anxiety, depression (Gouttebarge et al., 2019). The risk of depressive symptoms in elite athletes has been associated with genetic factors, female gender, poor social relationships, participating in aesthetic sports, individual sports, injury and pain, concussion, and retirement, especially if unexpected (Reardon, 2017). Furthermore (Rice et al., 2019) stated that increased anxiety symptoms were associated with career dissatisfaction, female gender and injuries experienced by athletes. All of these anxiety symptoms can be minimized by female athlete respondent, which can proved from her maximum performance so that she can reach the best achievement, namely a gold medal at the world rock climbing championship, namely the IFSC word cup in 2023.

Conclusion

Based on the study results, it can be concluded that female athlete has an increasing career path in terms of ability and achievement. Female athlete started her carrer from a club athlete, Tangerang city athlete, Banten province athlete and national athlete who has joined national training. Her abilities and achievements showed enhancement from regional, provincial, national until international achievements and won first place in the world championships.

Mental health has a significant influence on the career achievements of rock climbing athletes apart from structured and planned training, qualified

coaches and continuous coaching. Athletes who have good mental health will achieve maximum performance.

References

- Aryani, M., Berliana, B., Komarudin, & Nurjaya, D. R. (2023). Indonesian Sport Climbing Coach Women's Career View from Perspective of Masculinity, 01(1), 278-285.
- Berliana, B., Hamzah, A., & Messiana, S. (2021). Gender Issue in Masculine Sports in Indonesia: A Case Study, 9(1), 1-9.
- Bompa, T., & Buzzichelli, C. (2015). Periodization Training for Sports.
- Cameron, S. J., Grano, D. A., & Grano, D. A. (2023). "That Stuff Can Be Ugly:"
 Black Women in Sport, Stigma, and Public Mental Health Disclosures "
 That Stuff Can Be Ugly:" Black Women in Sport, Stigma, and Public Mental
 Health Disclosures. Communication Studies, 74(6), 532–551. https://doi.org/10.1080/10510974.2023.2247609
- Canadian Institutes of Health Research (2020) https://cihr-irsc.gc.ca/e/48642. html. Diakses pada tanggal 11 November 2023 pukul 15.51
- Creswell, J., & Creswell, J. D. (2018). Research Design Qualitative, Quantitative, and Mixwd Methods Approaches (Fifth Edit). California: SAGE Publications, Inc.
- Durand-bush, N., & Salmela, J. H. (2010). The Development and Maintenance of Expert Athletic Performance: Perceptions of World and Olympic Champions of Expert Athletic Performance:, 3200. https://doi.org/10.1080/10413200290103473
- Fite, D., & Bloom, H. (1985). David Fite Harold Bloom_the rhetoric of Romantic vision-Univ of Massachusetts Press (1985).
- Gorczynski, P., Currie, A., Gibson, K., Gouttebarge, V., Castaldelli-maia, J. M., Mountjoy, M.,Swartz, L. (2020). Competence in elite sport Developing mental health literacy and cultural competence in elite sport Ac ce pt ed us t. Journal of Applied Sport Psychology, 0(0), 000. https://doi.org/10.1080/10413200.2020.1720045
- Gouttebarge, V., Castaldelli-maia, J. M., Gorczynski, P., Hainline, B., Hitchcock, M. E., Kerkhoffs, G. M., & Rice, S. M. (2019). Occurrence of mental health symptoms and disorders in current and former elite athletes: a systematic review and meta-analysis, 700–707. https://doi.org/10.1136/bjsports-2019-100671
- IOC. (2018). IOC Gender Equality Review Project. Switzerland. Retrieved from https://stillmed.olympic.org/media/Document Library/OlympicOrg/ News/2018/03/IOC-Gender-Equality-Report-March-2018.pdf
- IOC. (2020). Olympic charter. Switzerland: the International Olympic Committee. Retrieved from https://stillmed.olympic.org/media/Document Library/OlympicOrg/General/EN-Olympic-Charter.pdf
- Joseph, L. J., & Anderson, E. (2016). The influence of gender segregation and teamsport experience on occupational discrimination in sport-based employment, 9236(March). https://doi.org/10.1080/09589236.2015.1070 712
- Keolahragaan, U. (2022). UU RI NO 11 TAHUN 2022 TENTANG KEOLAHRAGAAN.
- Knoppers, A., Spaaij, R., Claringbould, I., & Spaaij, R. (2021). Discursive resistance to gender diversity in sport governance: sport as a unique

- field? International Journal of Sport Policy and Politics, 00(00), 1–13. https://doi.org/10.1080/19406940.2021.1915848
- Nauright, J. (2014). Sport in Society: Cultures, Commerce, Media, Politics African women and sport: the state of play, (November), 37-41. https://doi.org/10.1080/17430437.2013.816100
- Ong, N. C. H. (2017). Assessing objective achievement motivation in elite athletes: A comparison according to gender, sport type, and competitive level. International Journal of Sport and Exercise Psychology, 0(0), 1–13. https://doi.org/10.1080/1612197X.2017.1349822
- Osborne, C. A., Skillen, F., Osborne, C. A., & Skillen, F. (2015). Women's History Review Forum: Women in Sport Forum: Women in Sport, 2025(October). https://doi.org/10.1080/09612025.2015.1028207
- Purcell, R., Rice, S., Butterworth, M., & Clements, M. (2020). Rates and Correlates of Mental Health Symptoms in Currently Competing Elite Athletes from the Australian National High Performance Sports System. Sports Medicine. https://doi.org/10.1007/s40279-020-01266-z
- Reardon, C. L. (2017). Psychiatric Comorbidities in Sports. Neurologic Clinics of NA, 35(3), 537–546. https://doi.org/10.1016/j.ncl.2017.03.007
- Reardon, C. L., Hainline, B., Aron, C. M., Baron, D., Baum, A. L., Bindra, A., Grandner, M. A. (2019). Mental health in elite athletes: International Olympic Committee consensus statement (2019), 667-699. https://doi. org/10.1136/bjsports-2019-100715
- Rice, S. M., Gwyther, K., Santesteban-echarri, O., Baron, D., Gorczynski, P., Gouttebarge, V. Purcell, R. (2019). Determinants of anxiety in elite athletes: a systematic review and meta-analysis, (2), 722-730. https://doi. org/10.1136/bjsports-2019-100620
- Swanson, J. L., Daniels, K. K., & Tokar, D. M. (1996). Barriers : The Career Barriers Inventory. https://doi.org/10.1177/106907279600400207
- Turgeon, S., Martin, L., Rathwell, S., Camiré, M., Turgeon, S., Martin, L., ... Group, F. (2023). The influence of gender on the relationship between the basic psychological needs and mental health in high school student-athletes. International Journal of Sport and Exercise Psychology, 1–18. https://doi.org/10.1080/1612197X.2022.2161103
- Uher, R., & Zwicker, A. (2017). Etiology in psychiatry: embracing the reality of poly-gene-environmental causation of mental illness, (June), 121–129.
- Vella, S. A., Swann, C., & Tamminen, K. A. (2020). Mental health in sport: An overview and introduction to the special issue. Journal of Applied Sport Psychology, 0(0), 1–3. https://doi.org/10.1080/10413200.2020.1854897
- Vella, S. A., Swann, C., Tamminen, K. A., Vella, S. A., Swann, C., & Tamminen, K. A. (2020). Reflections on the field of mental health in sport: Critical issues and ways of moving forward. Journal of Applied Sport Psychology, 0(0), 1–7. https://doi.org/10.1080/10413200.2020.1854898
- Walton, C. C., Rice, S., Gao, C. X., Butterworth, M., Clements, M., & Purcell, R. (2021). Gender differences in mental health symptoms and risk factors in Australian elite athletes, 1–6. https://doi.org/10.1136/bmjsem-2020-000984
- World Health Organization. (2018).Mental health: https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. Diakses pada tanggal 11 November 2023 pukul 15.41