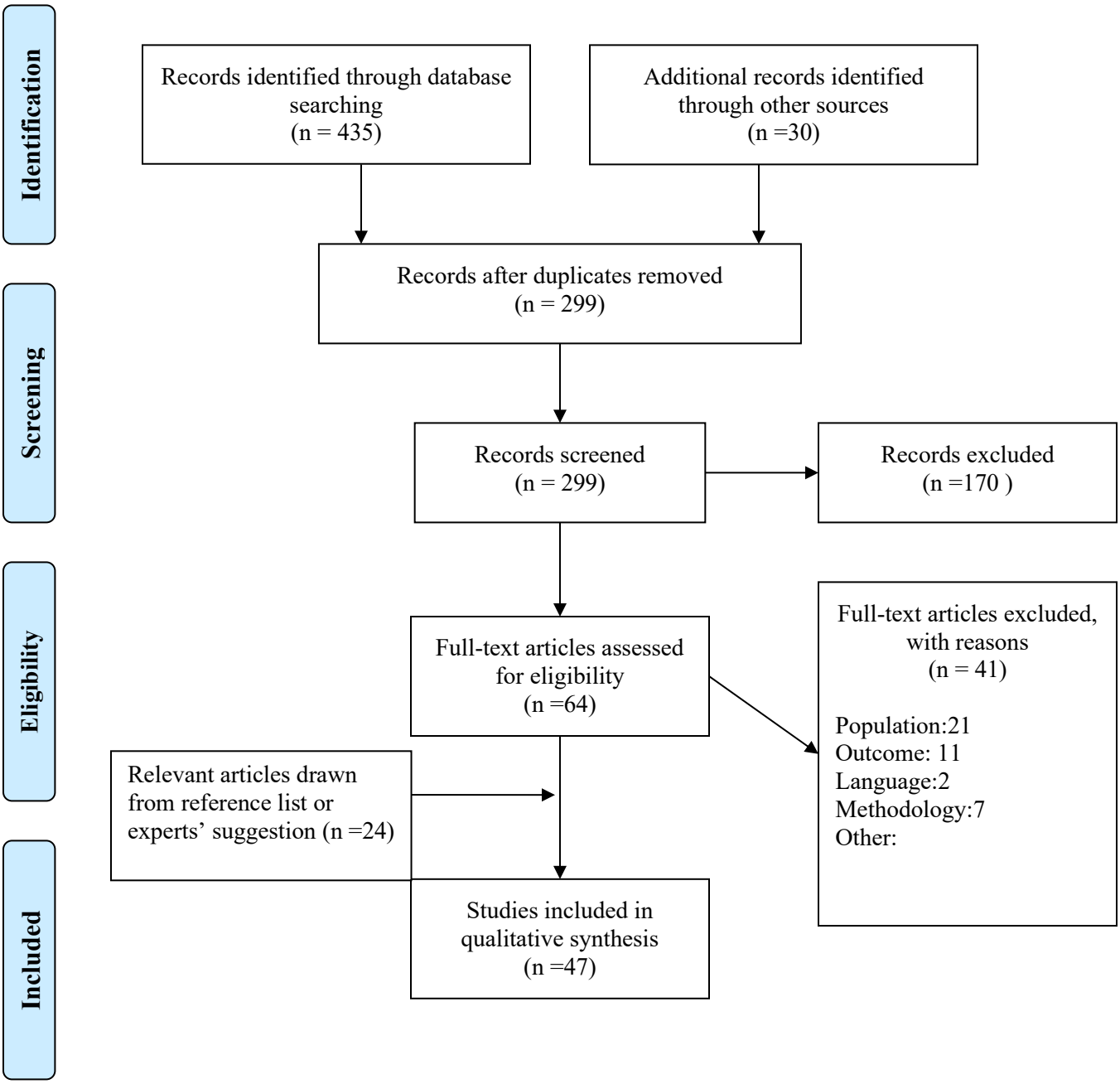
Annexe 1 : Arbre décisionnel PRISMA et mots clés utilisés



Mots clé utilisés: (esport* OR "virtual sport*" OR "competitive video games" OR "electronic sports" OR "e-sport*" OR "professional video game*") AND (health OR life skills OR social OR fitness OR academic performance OR academic retention OR lifestyle OR "well-being" OR wellbeing OR "physical activity" OR sedentar* OR nutrition OR eating OR sleep)

Annexe 2 : Tableau de Revue de Littérature

Titre	Auteurs	Année de publication	Lieu de collecte	Devis	Échantillon	Mesures	Résumé de l'article
Analysis of Video Game Players' Emotions and Team Performance: An Esports Tournament Case Study	Abramov et al.	2022	Russie	Observationnel	Six équipes durant un tournoi	La communication et les émotions des joueurs pendant un tournoi, ainsi que les carnets de match	Video gaming and eSports is a quickly developing industry already involving billions of players worldwide. Gaming and eSports tournaments require strong mental abilities to avoid severe stress and other negative consequences upon completing the game. In this article, we report on the impact of emotions on a team performance. For this reason, we collect audio recordings and game logs from the players in real conditions at an eSports tournament. This data is further used in trained machine learning models for analysis of players' emotional conditions from the voice during the game. We considered recognition of several types of emotions as well as the background sounds. To do this, we trained 92.7% accuracy classifier of six most common classes of emotions and sounds in eSports audio and applied it to eSports data. As a result, we demonstrate that there is an opportunity to measure the eSports team's performance from the players' emotional conditions obtained from the voice communication. We found that there is a strong correlation among the performance of the team, communication between the players, and emotional sentiment of communication. The teams achieve much better results when they had much more internal conversations during the game.
Physiological and Perceptual Response to a Live Collegiate Esports Tournament.	Andre et al.	2020	États-Unis	Observationel	14 joueurs universitaires, age = 19.8 ± 1.0 (18 – 22)	Fréquence cardiaque, IMC et niveau de fatigue mentale	Competitive esports has grown rapidly across the globe justifying a need to quantify the physiological stress response to this environment. The purpose of this study was to describe the physiological and perceptual responses in a live collegiate esports tournament. Male members of the University of Mississippi Esports team (n = 14; age = 19.8 ± 1.0 years; BMI = 24.1 ± 5.5) completed the study during the esports Egg Bowl. Heart rate

							(HR) and heart rate variability (HrV) were collected pre-, during, and post-competition. Rating of perceived exertion for the session (S-RPE) and mental fatigue were collected post competition. Mean HR during competition were significantly elevated compared to mean pre- and post- (131.4 ± 19.0 bpm vs. 97.1 ± 19.9 bpm and 101.9 ± 17.4 bpm; p = 0.000) and peak HR during competition were significantly elevated compared to peak pre- and post-(188.1 ± 32.9 bpm vs. 119.6 ± 20.1 bpm and 119.9 ± 16.3 bpm; p = 0.000). R-R intervals were significantly lower in-competition (465.71 ± 68.99) compared to pre-(643.64 ± 138.54) or post- competition (616.07 ± 109.98; p = .000). No significant differences were found in rMSSD, (ln) rMSSD, SDNN, or NN50 across the three measurements. LF was lower post- competition than pre-competition (d = 0.278). Participants indicated moderate mental fatigue (3.7 ± 1.2; on a scale of 1-7). These findings demonstrate competing in esports causes a physiological stress response. Given the elevated HR, further understanding of the chronic physiological stress to competitive esports is warranted.
Symptoms of Nomophobia, Psychological Aspects, Insomnia and Physical Activity: A Cross-Sectional Study of ESports Players in Saudi Arabia	AlMarzooqi et al.	2022	Arabie Saoudite	Transversal	Un total de 893 (216 joueurs esport vs. 677 joueurs non esport) participants. Âge =24,30± 6,04. Niveaux de compétition des joueurs eSport non spécifiés	Nomophobie, troubles anxieux, insomnie, dépendance à Internet, dépendance alimentaire, activité physique et qualité du sommeil.	Background: ESports is a new trend of sports, which has gained considerable popularity worldwide. There is a scarcity of evidence that focuses on the lifestyle of ESports players (eSP) particularly on symptoms of nomophobia, level of anxiety, sleep quality, food consumption and physical activity. (2) Objective: to determine the prevalence and relationship between symptoms of nomophobia, psychological aspects, insomnia and physical activity of eSP in Saudi Arabia. (3) Methods: A cross-sectional study was conducted between March and April 2021 using a convenient self-selection adult sample. A total of 893 (216 eSP vs. 677 non-eSP (NeSP)) participants aged over 18 years were included. All participants answered a seven-part validated questionnaire that included: (i) sociodemographic questions; (ii) a symptoms of nomophobia questionnaire; (iii) general

							anxiety disorder questions, (iv) an insomnia severity index, (v) an Internet addiction scale, (vi) the Yale food addiction scale 2.0 short form and (vii) an international physical activity questionnaire. (4) Results: Among the entire population, the prevalence of moderate to severe nomophobia, anxiety, insomnia, Internet addiction and low physical activity were 29.8%, 13.9%, 63.3%, 27% and 2.8%, respectively. The eSP and NeSP differed significantly in nomophobia scale, anxiety and insomnia values. Compared to NeSP, eSP had a higher level of severe nomophobia $p = 0.003$, a severe level of anxiety $p = 0.025$ and symptoms of insomnia $p = 0.018$. Except for food addiction and physical activity, a positive correlation was identified between symptoms of nomophobia, anxiety and insomnia among eSP. (5) Conclusion: This study reported high prevalence of nomophobia, anxiety and insomnia among eSP compared to NeSP.
Career as a Professional Gamer: Gaming Motives as Predictors of Career Plans to Become a Professional Esport Player	Bányai et al	2020	Hongrie	Transversal	190 joueurs avec experiences compétitives (age=21.6 ± 6.2)	Temps de jeu, motivations liées au jeu, expérience liée à l'esport, projets de devenir professionnel et efforts avant la compétition.	Increasing numbers of young video gamers view esports (i.e., competitive video gaming) as a career opportunity, rather than just a recreational activity. Previous studies have explored the motivational differences between esport and recreational gamers and the motivational changes through career journey to become a professional esport player. The present study explored the predictors of career plans to become a professional esport player, with a specific focus on gaming motivations. Gaming time, gaming motivations, and esport-related playing experience were also examined among Hungarian gamers with competitive gaming experience (N = 190), such as years spent in esports, medium and frequency of participating in esport tournaments, the effort put into training before the tournaments, and the plans to become a professional esport player. Binary logistic regressions were carried out and results showed that the gaming motivations of competition, skill development, and social motivations predicted career planning as a professional esport player. Additionally, results showed that younger

							players were more likely to seek career opportunity as professional esport players than older players. Future studies should focus on novice esport players' psychological exposure to the hypercompetitive scene of esports, such as high expectations or the risk of becoming problematic videogame users due to their motivational changes.
Do e-athletes move? A study on physical activity level and body composition in elite e-sports	Bayrakdar et al.	2020	États-Unis, Turquie et Corée du sud	Transversal	137 joueurs professionnels avec experiences internationales (n=137, age 19.92±2.21); 27 from Turkey, 47 from South Korea, 63 from USA	IMC, nombre de pas, temps passé en eSport	Background and Study Aim. The aim of this study is to determine the effect of e-sports on physical activity level and body composition.
Material and Methods. The athletes who participated in the study were 19.92± 2.21 years of age, 1.73±0.04 m body height and 78.35±6.52 kg body weight. A total of 137 athletes participated in the study, including 27 from Turkey, 47 from South Korea and 63 from the United States (USA). The data was collected by e-mail from the sports clubs. The athletes who representing their country in international competitions involved in the study. The data obtained were evaluated in the SPSS program.
Results. According to the findings of the study, the body mass index (BMI) of e-sport athletes is 26.03±1.85, the number of physical activity steps is 6646±3400 and the daily e-sport hours are 9.34±1.12. The BMI was determined as USA 26.12, South Korea 26.02 and Turkey 25.84 respectively. The number of physical activity steps was identified as 5255 steps in the US, 7785 steps in South Korea and 7909 steps in Turkey. The daily e-sports hour is set at US 9.63 hours, Turkey 9.29 hours and South Korea 8.97 hours. In comparison of country-based athletes, there was a significant difference between physical activity level and daily e-sports hours at p<0.05. The value of BMI is not different. Although it is not statistically related to the physical activity level and BMI. There was no statistically significant relationship between daily e-sports hours and BMI and physical activity step counts. However, as the time of e-sports increases, BMI increases and the number of physical activity steps decreases.

							Conclusions. As a result it is seen in the findings of the research that athletes dealing with e-sports are included in the fat group as a body composition and their daily physical activity steps are low. In addition, according to the results of the research, e-sports are thought to have negative effects on physical health. Thanks to the physical activity programs to be applied to these athletes, it is thought that their body composition and physical activity levels can be improved
Exploring the use of technology among newly arrived children in Hong Kong: from an e-sports and cultural capital perspective	Cheng et al	2022	Hong Kong	Qualitatif	Huit joueurs (age 14-20) et leurs parents, 5 enseignants et un directeur d'école	Leurs attitudes vis-à-vis les eSports	Based on Bourdieu's cultural capital theory, our study examined the engagement of newly arrived children (NAC) with ICT and e-sports both at home and in school in the context of Hong Kong. Our in-depth case study of a Hong Kong secondary school revealed that the selected NAC typically came from disadvantaged school and immigrant family backgrounds. They had limited access to technology and little parental mediation at home. The results also showed that as these NAC excessively used ICT at home for multiplayer online games, they became active e-sports players with good ICT skills. These students created an e-sports culture in the school, which was supported by their teachers and the principal. Contrary to their parents' conservative and negative attitude towards a career in e-sports or the ICT industry, the principal and teachers viewed e-sports as an alternative way for their students to accumulate capital and provide them with opportunities for upward social mobility. The fndings demonstrate the importance of education in bridging the digital divide of NAC and helping them accumulate the digital dimension of cultural capital.
Investigation of Hong Kong Students' Esports Participation Intentions Using the Theory of	Chung et al	2022	Hong Kong	Transversal	Joueurs et non-joueurs de eSport (n= 1164, 52,8% femme) étudiants universitaire(n=951)	Attitudes des étudiants et des joueurs de sports électroniques à l'égard des sports électroniques, ainsi que celles des parents des joueurs de sports	Esports have grown to become a core part of popular culture in many countries, including Hong Kong. Albeit the low participation rates in Esports in Hong Kong, it was starting to gain traction, yet the local Esports advocates were experiencing challenges in promoting and popularizing the Esport. Hence, the current study was aimed to identify and reveal the

Planned Behavior Approach: A Structural Equation Model						électroniques, croyances comportementales, de contrôle et normatives	determinants of participating in Esports, as well as strengthen the work on Esports behaviors using the theory of planned behavior (TPB), a reliable and valid prominent theory in predicting human behavior across a plethora of contexts, ranging from health-related behaviors to sport consumption behaviors. In the current study, the convenience sampling method was used to recruit over 2000 students (secondary school, N = 1567 (female = 615); university students, N = 1525 (female = 255). The students were invited to participate in the survey for collecting their perception on Esports participation using TPB-based questionnaire. Results were analyzed using theoretical analysis and structural equation modeling (SEM). The results show that both secondary school and university students have positive attitudes toward Esports. The outcomes indicated that participating in Esports develops social networks, and people with professional Esports' skills capability and being fortitude tend to be models of Esports participation. However, inadequate resources are a significant barrier to participation in the Esports business. The SEM model verified that the variables of intention in Esports participation among the students in Hong Kong with an adequate goodness of fit index. As a whole, the current study has identified the factors and determinants of Esports' intention and behavior among Hong Kong students, which were successfully displayed in terms of the theory of planned behavior. In addition, the findings are expected to provide the Hong Kong government with a documented framework to advocate Esports-related policies on a long-term basis.
Managing the health of the eSport athlete: an integrated health management model	DiFrancisco-Donoghue et al.	2019	États-Unis	Transversal	65 joueurs universitaires (18-22 ans)	Blessures, activités physiques et temps de pratique	Objectives eSport is a form of electronic gaming, also known as professional or competitive video gaming, and is growing at a rapid pace worldwide. Over 50 US colleges have established varsity gaming teams over the past three years; some colleges offer eSport scholarships as they do for traditional sports. There is little objective research on the health

							habits of these players who are often placed under the direction of the athletics department on college campuses, and there is currently no health management model on how to treat these new athletes. Methods Anonymous electronic surveys were sent to 65 collegiate eSport players from nine universities across the USA and Canada inquiring about gaming and lifestyle habits, and musculoskeletal complaints due to eSport competition. results Players practiced between 3 and 10 hours per day. The most frequently reported complaint was eye fatigue (56%), followed by neck and back pain (42%). eSport athletes reported wrist pain (36%) and hand pain (32%). Forty per cent of participants do not participate in any form of physical exercise. Among the players surveyed, only 2% had sought medical attention. Conclusion eSport players, just like athletes in traditional sports, are susceptible to overuse injuries. The most common complaint was eye fatigue, followed by neck and back pain. This study shows eSport athletes are also prone to wrist and hand pain. This paper proposes a health management model that offers a comprehensive medical team approach to prevent and treat eSport athletes.
What Makes a Champion: The Behavioral and Neural Correlates of Expertise in Multiplayer Online Battle Arena Games	Ding et al.	2018	Chine	Transversal	Joueurs professionnels (n=10, âge moyen = 21), semi-professionnels (n=10, âge moyen = 18) étudiants de premier cycle jouant occasionnellement (n=20, âge moyen = 20).	Habiletés cognitives, Habiletés spécifiques au jeux, EEG.	Despite the popularity of multiplayer online battle arena (MOBA) games, academic research on MOBA is still very limited. The current study aimed to fill this gap by exploring the behavioral and neural correlates of expertise for the most popular MOBA game, League of Legends (LOL). Three groups of LOL players with different expertise levels were recruited, including professional players, background-matched trainees, and age-matched students with no systematic LOL training. A series of behavioral tests and questionnaires was used to evaluate their general cognitive skills and their LOL-specific abilities were extracted from the neural activities (Electroencephalographs (EEG)s and Electrocardiographs (ECG)s) recorded during LOL matches. Using the behavioral features, both the students and the trainees could be

							significantly separated from the professional players (trainees vs. professional players, 61.11%; students vs. professional players, 66.67%), whereas the students and the trainees cannot be distinguished. Using the neural features, all three groups could be well separated with higher classification accuracies (students vs. trainees: 88.24%; trainees vs. professional players, 93.33%; students vs. professional players, 93.75%). The most contributing behavioral and neural indices were revealed as well, including multiple-object tracking capability, mental concentration, visuospatial attention ability, etc. The authors' results for the first time showed the possibility of recognizing MOBA expertise using both behavioral and neural measurements and provided a framework for evaluation, selection, and training of professional MOBA players.
Esports Athletes on a Team or Club Are More Physically Active and Less Sedentary Than Equally Experienced, Casual Video Gamers	Dowdell et al	2024	États-Unis	Transversal	182 hommes (âge moyen = 36,6 ± 11,3) joueurs d'eSport, 122 femmes (âge moyen = 36,9 ± 11,0) joueurs d'eSport, 178 hommes (âge moyen = 33,9 ± 8,1) joueurs et 50 femmes (âge moyen = 33,2 ± 9,1) joueurs	Temps actif et sédentaire	Literature and governing agencies refer to gamers who partake in esports as "esports athletes," and research suggests that exercise may be a beneficial component of esports training. Yet esports athletes are stereotyped similarly to casual gamers, for example, sedentary and not physically active. The purpose of this research was to compare physical activity and sedentary behavior between esports athletes on a team or club and casual gamers. Data were collected via an online survey N = 532 total; n= 172 women). The survey assessed physical activity behaviors (i.e., International Physical Activity Questionnaire), time spent playing games, and esports affiliation. Independent samples t tests and analysis of variance were used for comparisons. Esports athletes on a team or club reported significantly more F = 67.99, p<01) physical activity (5,706 ± 4,558 metabolic equivalent min/week) compared to casual gamers (2,738 ± 2,792 metabolic equivalent min/week). There was a significant interaction between the effects of gender and group (F = 5.680,p = .018) on vigorous physical activity. Esports athletes on a team or club also

							reported significantly less F = 77.436, p< .001) sedentary behavior compared to casual gamers. There was no reported difference in time spent playing video games between groups t = 1.416, p = .157). In conclusion, esports athletes on a team or club were more physically active and less sedentary than their casual counterparts
Distributed Leadership in Collegiate Esports	Falkenthal et al.	2021	États-Unis	Qualitatif	14 joueurs universitaires	Distribution du leadership	Current research supports the use of recreational games in higher education settings for student development. Team-based esports in collegiate settings offer leadership experiences analogous to other organizational contexts. Distributed leadership reflects leader roles shared dynamically with multiple points of salience and dynamic or absent hierarchy. This study looked at elements of distributed leadership claimed among collegiate esports teams and whether esports play contributed to distributed leadership development. This phenomenological deductive qualitative research study used themes from distributed leadership theory to examine the experiences of focus groups composed of competitive collegiate esports participants on three teams from three different popular esport games, respectively. Researchers found that ample comparisons across respondent team interviews corresponded with the leadership theory and found that the more static influence of credibility seemed to mediate team-based communications and behaviors. Implications for distributed leadership both in esports and in other organizations include considerations for intentionality behind how hierarchies are enacted and how credibility may inform an understanding of power distribution within teams.
Expertise in Professional Overwatch Play	Fanfarelli et al.	2022	N/A	Qualitatif	11 joueurs professionnels	Compétences nécessaires pour atteindre le circuit professionnel	eSports is a rapidly growing phenomenon in competitive gaming. Expertise is an interesting topic to study in relation to eSports, as eSports athletes are considered among the most highly-skilled players of their particular games. Examining expertise not only advances the understanding of what skills compose professional play but enables a deeper study of learning in games; before learning processes

							are studied, it is important to detail what learning these processes should produce. This study examines expertise through the application of thematic analysis to a series of interviews with professional players of the eSports game, Overwatch. The goal of this study is to identify which skills are perceived to be important to professional-level play by professional players. Two overarching themes were identified, game sense and mechanics. A number of sub-themes were identified as important, including survival, anticipation / prediction, communication, thoughtfulness, aim, ability usage, movement and positioning, and team-based mechanical synergies.
Identifying electronic-sport athletes' sleep-wake cycle characteristics.	Gomes et al.	2021	Brésil	Experimental	20 joueurs élites de eSport (age =20,5 ± 0,76)	Qualité du sommeil, fatigue, temps de début et de fin du sommeil	Organized electronic-sport competitions (e-Sport) is related to several health problems, including sleep disorders. The objective of this study was to evaluate the characteristics of the sleep-wake cycle of League of Legends (LoL) athletes during their pre-training, training, pre-competition, and competition routines. Twenty male elite LoL players completed the questionnaires related to sleep pattern (Pittsburgh Sleep Quality Index), sleepiness (Epworth Sleepiness Scale), and chronotype (Morningness–Eveningness Questionnaire), and they wore an actigraph for 7 days. Pre-training and pre-competition assessments were carried out by questionnaires (n = 20) and training and competition assessments by actigraph (n = 16). The chronotype that most Eathletes presented was a moderately evening type. They presented a poor sleep quality and were borderline for excessive daytime sleepiness. Sleep onset and offset times were significantly prolonged during the competition condition ($t = 2.11$, $p < .05$; $t = 2.51$, $p < .05$). Correlations showed a relationship between PSQI and Sleepiness in the pre-training and pre-competition conditions ($r = 0.50$, $p = .02$) and chronotype with sleep onset ($r = 0.61$, $p = .01$), total sleep time ($r = 0.55$, $p = .02$), and time awake ($r = 0.49$, $p = .04$) in the competition condition. Linear regression analysis indicated associations between the

							PSQI and sleepiness (25%; p =.02) during pre-training and pre-competition. During the competition there were associations between chronotype and sleep onset (37%; p =.01), chronotype and time awake (24%; p =.04), and chronotype and TST (30%; p =.02). In general, the findings support the conclusion that LoL athletes presented an altered sleep pattern during their training routines.
Professional Esports Players: Motivation and Physical Activity Levels	Giakoni-Ramirez et al.	2022	Amérique du sud et Europe	Transversal	260 joueurs professionnels (age=21,30 ± 2,26)	Types de motivation et activité physique	The professionalisation of esports has increased in recent years, generating the need for further study. Its evolution and continuous development have led the consideration of esports as a profession, increasing the number of players, practice modalities, and hours of play dedicated to this field. The aim of this study was to analyse the relationship between physical activity levels and motivational orientations in an international sample of professional esports players. A cross-sectional and observational study was conducted in European and Latin American countries. The sample was non-probabilistic by convenience, and 260 male professional esports players were recruited. A survey was used that included demographic data, body composition, physical activity (International Physical Activity Questionnaire), and motivation (Sport Motivation Scale). The results show that 92.7% of professional esports players have moderate and high levels of physical activity and that players with low levels of physical activity have positive values in all dimensions of motivation. It is concluded that extrinsic and intrinsic motivation correlates inversely with energy expenditure.
Differential regional gray matter volumes in patients with on-line game addiction and professional gamers	Han et al.	2012	Corée du sud	Transversal	20 joueurs dépendants (age=20,9 ± 2,0), 17 joueurs professionnels (age=20,8 ± 1,5) et 18 participants en santé (age=20,9 ± 2,1).	Volume de matière grise	Patients with on-line game addiction (POGA) and professional video game players play video games for extended periods of time, but experience very different consequences for their on-line game play. Brain regions consisting of anterior cingulate, thalamus and occpito-temporal areas may increase the likelihood of becoming a pro-gamer or POGA. Twenty POGA, seventeen pro-gamers, and eighteen healthy comparison subjects (HC)

							were recruited. All magnetic resonance imaging (MRI) was performed on a 1.5 Tesla Espree MRI scanner (SIEMENS, Erlangen, Germany). Voxel-wise comparisons of gray matter volume were performed between the groups using the two-sample t-test with statistical parametric mapping (SPM5). Compared to HC, the POGA group showed increased impulsiveness and perseverative errors, and volume in left thalamus gray matter, but decreased gray matter volume in both inferior temporal gyri, right middle occipital gyrus, and left inferior occipital gyrus, compared with HC. Pro-gamers showed increased gray matter volume in left cingulate gyrus, but decreased gray matter volume in left middle occipital gyrus and right inferior temporal gyrus compared with HC. Additionally, the pro-gamer group showed increased gray matter volume in left cingulate gyrus and decreased left thalamus gray matter volume compared with the POGA group. The current study suggests that increased gray matter volumes of the left cingulate gyrus in pro-gamers and of the left thalamus in POGA may contribute to the different clinical characteristics of pro-gamers and POGA.
An Exploration of Mental Skills Among Competitive League of Legend Players	Himmelstein et al.	2017	États-Unis	Qualitatif	5 joueurs professionnel	Obstacles mentaux et techniques utilisées pour atteindre une performance optimale	ESports, also known as competitive video gaming, has seen tremendous growth over the past few years. Several studies have been conducted that examined the potential cognitive benefits of playing video games, but few have examined the psychosocial factors needed to perform at the highest level of competitive video gaming. In this study, the researchers aimed to identify specific mental obstacles players face and any mental techniques gamers already utilize by conducting a qualitative content analysis. Interviews with five high-level competitive League of Legend players were conducted to shed light on their experiences. The interviews resulted in two high order themes. Those high order themes were the following: techniques used to achieve optimal performance and obstacles encountered by competitive gamers.

							The data collected can be used by a wide population in both the performance psychology field and the eSports realm, more specifically, future mental skills consultants working with League of Legends players, gamers themselves, and academics who wish to serve, improve, or study those involved in an emerging performance domain.
High e-Performance: Esports players' coping skills and strategies	Hong et al.	2022	Monde	Qualitatif	21 joueurs professionnels, 6 semi-professionnels, 4 amateur and 2 ex-joueurs professionnels (age 17-37)	Mécanismes et strategies d'adaptation	Aims: This paper investigates esports players' coping skills and strategies to enhance their physical and mental health during their esports career. Methods and Results: A total of 33 esports players – professional (n=21), semi-professional (n=6), amateur (n=4), and retired players (n=2) – participated in this study. Semi-structured interviews were carried out to identify participants coping skills and strategies. Thematic analysis was applied to analyse the data where three main themes were identified: life balance, social support, and sleep management. Life balance, through taking a break and participating in other activities, was named as a coping strategy to enhance their health and wellbeing. Social support was integral in creating coping strategies for esports players to ensure positive wellbeing, not only during their career but also after. Lastly, sleep management was recognized as a key coping skill to manage both training loads and competition pressure. Conclusions: These findings suggest that the identified coping skills and strategies could be applied within bigger esports communities due to the range of participants included. Those coping skills/ strategies should be also considered when professional teams develop support initiatives to ensure players' wellbeing and welfare.
Le e-sport, un nouveau « sport » numérique universitaire?	Karsenti et al.	2018	Amérique du nord et Europe	Mixte	8 joueurs et gérants professionnels et 522 étudiants universitaires	Méthodes d'entrainement, attitude envers l'entrainement, indicateurs de succès.	Alors que la pratique du e-sport est de plus en plus répandue et que l'on en vient même à parler de la présence de ce sport aux Jeux olympiques de 2024 à Paris, il peut être important de s'intéresser à cette nouvelle tendance vidéoludique et à sa reconnaissance sociale et professionnelle à l'université. Ce document, en plus de présenter une revue de la

							« jeune » littérature sur le e-sport, dévoile les conclusions d'une recherche menée sur la pratique du e-sport auprès de 522 étudiants universitaires considérés comme des « e-athlètes » de cette discipline. Quatre objectifs ont guidé cette recherche : 1) déterminer les méthodes et conditions d'entraînement des e-athlètes; 2) décrire les habitudes des e-athlètes en matière d'exercices physiques; 3) définir la pratique des e-sports telle que vécue par les e-athlètes; et 4) mieux comprendre la potentielle reconnaissance de cette activité en tant que sport. Cette recherche examine par la même occasion les relations du e-sport avec le milieu universitaire. Elle est particulièrement originale dans la mesure où elle s'inscrit dans un domaine en plein essor et incontestablement tourné vers l'avenir.
An Extended Study on Training and Physical Exercise in Esports	Kari et al.	2019	Monde	Mixte	31 joueurs professionnels et 84 joueurs de haut niveau	Activité physique, motivation et attitudes envers l'activité physique	This chapter is an extended revision of the authors' earlier study (2016) on the training routines of professional and high-level esport players, with added focus on their physical exercise. The study is methodologically mixed with a quantitative survey sample (n=115) and a qualitative interview sample (n=7). Based on this data, high-level esport players train approximately 5.28 hours every day around the year, and professional esport players at least the same amount. Approximately 1.08 hours of that training is physical exercise. More than half (55.6%) of the professional and high-level esport players believe that integrating physical exercise into their training programs has a positive effect on esport performance; however, no less than 47.0% do the physical exercise chiefly to maintain their overall state of health. Accordingly, the study indicates that professional and high-level esport players are physically active as well: those of age 18 and older exercising more than three times the daily 21-minute physical activity recommendation given by the World Health Organization.

Do E-Athletes Move?	Kari et al.	2016	Monde	Transversal	31 joueurs professionnels et 84 joueurs de haut niveau	Activité physique, motivation et attitudes envers l'activité physique	This article offers possibly the first peer-reviewed study on the training routines of elite e-athletes with special focus on the subjects' physical exercise routines. The study is based on a sample of 115 elite e-athletes. According to the responses, e-athletes train approximately 5.28 hours every day around the year on the elite level. Approximately 1.08 hours of that training is physical exercise. More than half (55.6%) of the elite e-athletes believe that integrating physical exercise in their training programs has a positive effect on esport performance; however, no less than 47.0% of the elite e-athletes do their physical exercise chiefly to maintain overall health. Accordingly, the study indicates that elite e-athletes are active athletes as well, those of age 18 and older exercising physically more than three times the daily 21-minute activity recommendation given by World Health Organization.
Challenging the Portrait of the Unhealthy Gamer—The Fitness and Health Status of Esports Players and Their Peers: Comparative Cross-Sectional Study	Keterhut et al.	2023	Suisse	Transversal	51 joueurs d'eSports compétitifs (âge= 23±3 ans, 2 femmes) et 51 non-joueurs de eSports (âge=24 ± 3 ans, 2 femmes)	Activité physique, IMC, rapport taille/grandeur, pourcentage de graisse, tension artérielle, force de préhension et consommation maximale d'oxygène.	Background:Esports players are often referred to as sedentary athletes, as gaming requires prolonged sedentary screen exposure. As sedentary behavior and physical inactivity are major causes of noncommunicable diseases and premature death, esports players may be at an increased risk for health implications. Prior research has established esports players as having higher levels of body fat and lower levels of lean body mass versus age-matched controls, suggesting the need to assess further health and fitness outcomes of this demographic. However, while research interest is undoubtedly increasing, the majority of studies has focused on subjective self-report data and has lacked relevant objective health and fitness measurements.Objective:This study aimed to assess the health and fitness status of a group of competitive esports players in relation to an age- and sex-matched comparison group.Methods:In total, 51 competitive esports players (mean 23, SD 3 years, 2 female) and 51 nonesports players (mean 24, SD 3 years, 2 female) were enrolled

							in this cross-sectional laboratory study. The esports players and the nonesports players completed a questionnaire assessing demographic data and self-reported physical activity levels. Furthermore, physical parameters including BMI, waist-to-height ratio, body fat percentage, systolic blood pressure, diastolic blood pressure, pulse wave velocity, maximal grip strength, and maximal oxygen consumption were assessed.Results:There were no significant differences in BMI (t100=1.54; P=.13; d=0.30), waist-to-height ratio (t100=1.44; P=.16; d=0.28), body fat percentage (t100=−0.48; P=.63; d=−0.09), systolic blood pressure (t100=−0.06; P=.93; d=−0.01), diastolic blood pressure (t100=0.37; P=.71; d=0.07), pulse wave velocity (t93=−2.08; P=.15; d=−0.43), maximal grip strength (t100=−.08; P=.94; d=−0.02), maximal oxygen consumption (t100=−0.11; P=.92; d=−0.02), and physical activity (PA) levels (t86=2.17; P=.08; d=0.46) between the groups. Conclusions:While the health narrative directed toward esports players has been mainly negative, this laboratory-based study indicated that esports players are not less healthy or fit compared to their peers. However, it seems that esports players are very heterogeneous and seem to span across the whole range of the fitness and health spectrum. Thus, the generalized statements of the esports athlete as an obese and unhealthy individual may need to be reconsidered.
“Because I'm Bad at the Game!” A Microanalytic Study of Self Regulated Learning in League of Legends	Kleinman et al.	2021	États-Unis	Transversal	30 joueurs : 10 experts (âge moyen = 20,1), 10 non-experts (âge moyen = 21,9) et 10 novices (âge moyen = 24,5).	Motivation, apprentissage autorégulé et performances de dernière minute	Self-regulated learning (SRL) is a form of learning guided by the student's own meta-cognition, motivation, and strategic action, often in the absence of an educator. The use of SRL processes and skills has been demonstrated across numerous academic and non-academic contexts including athletics. However, manifestation of these processes within esports has not been studied. Similar to traditional athletes, esports players' performance is likely correlated with their

							ability to engage SRL skills as they train. Thus, the study of SRL in the context of esports would be valuable in supporting players' learning and mastery of play through specialized training and computational support. Further, an understanding of how SRL manifests in esports would highlight new opportunities to use esports in education. Existing work on SRL in games, however, predominantly focuses on educational games. In this work, we aim to take a first step in the study of SRL in esports by replicating Kitsantas and Zimmerman's (2002) volleyball study in the context of League of Legends. We compared the self-regulatory processes of expert, non-expert, and novice League of Legends players, and found that there were significant differences for processes in the forethought phase. We discuss three implications of these findings: what they mean for the development of future computational tools for esports players, implications that esports may be able to teach SRL skills that transfer to academics, and what educational technology can learn from esports to create more effective tools.
Spine Posture, Mobility, and Stability of Top Mobile Esports Athletes: A Case Series.	Lam et al.	2022	Chine	Experimental	48 joueurs professionnels (age 20,1 ± 1,67)	Biomécanique de la colonne vertébrale, problèmes musculo-squelettiques, IMC.	Professional esports athletes spend a long time in the same sitting posture during training and competition. Mobile esports may exacerbate potential postural problems because of the closer and unsupported arms and because athletes spend more time in a forward-/flexed-head posture. Prolonged sitting in these postures carries significant health risks and may lead to musculoskeletal problems and injuries. The objective of this retrospective study is to assess the posture, mobility, and stability of the spine for professional mobile esports athletes. We collected spine-assessment data from 48 athletes participating in a top-tier league on a real-time-strategy battle-arena online game. The spinal assessment was conducted using the SpinalMouse® under upright standing and trunk flexion in addition to the Matthiass test. Measurements were converted into Idiag Scores by the

							SpinalMouse® software. The Idiag Posture, Idiag Mobility, and Idiag Stability scores were 62.50 (IQR: 21), 63.50 (IQR: 19.5), and 54.50 (IQR: 14.5), respectively, and were significantly lower (p < 0.001) than the reference normative value (100). Age was found to have a weak positive correlation with the posture score (ρ = 0.29, p = 0.048). Although career duration appeared to lower the scores, the association was insignificant (p > 0.05). The scores also had no significant association with body height, body mass, body mass index, and esports team (p > 0.05). It was anticipated that mobile-based esports would attenuate the biomechanics of the spine and increase the likelihood of musculoskeletal problems, such as neck and back pain
ESport programs in high school: what's at play?	Lemay et al.	2024	Canada	Transversal	67 joueurs d'eSport au secondaire et 109 joueurs récréatifs (age = 16,4)	Activités en ligne et hors ligne, caractéristiques académiques et sociodémographiques, jeu problématique, santé physique.	Background: A growing number of high schools in Canada offer eSports (ES) in their facilities, which raises concerns regarding this activity's potential health risks for adolescents. Methods: The aim of this study is to describe the characteristics of 67 adolescent ES players (ESp) and to compare them to 109 recreational gamers in their high school (nESp). The two groups were compared on (1) sociodemographic and academic characteristics; (2) online and offline activities; (3) psychological characteristics. Results: Results show that ESp spend more time on online activities and report a higher proportion of problematic gaming compared to the nESp group. ESp report more often that gaming has positive consequences on their physical health and report more often negative consequences on their education compared to the nESp group. Conclusion: These results underscore the importance of screening gaming problems among adolescent ES players. Targeted prevention should be carried out with these teenagers and in order to be adapted, prevention efforts should consider both, the positive and negative consequences that ESp experience from gaming.
Stressors, perceived stress	Leis et al.	2022	Europe	Qualitatif	12 joueurs d'eSport (age=21,83 ± 2,85)	Stresseurs, strategies d'adaptation et	To inform future intervention strategies and enhance professional esports players'

responses, and coping strategies in professional esports players: A qualitative study						performance	performance. This qualitative study investigated stressors, perceived stress responses and coping strategies experienced by professional League of Legends players. Following criterion-based sampling, semi-structured interviews with 12 professional esports players were performed. The findings illustrate a variety of stressors related to team, performance, audience, and social media. Whereas players reported that perceived stress responses prior to competition (e.g., nervousness and excitement) seemed to be suppressed during competition, post-competition responses appeared to relate to the outcome of competition. Although a range of strategies were identified, players most frequently communicated with teammates or coaches and focused on performance when coping with stressors. Study results demonstrate a need to gain an in-depth understanding of stressors, coping strategies, and their effects on performance. In addition, it seems beneficial to teach players how to recognize and regulate perceived stress responses.
Stress Management Strategies in Esports: An Exploratory Online Survey on Applied Practice	Leis et al.	2023	Amérique du nord et Europe	Qualitatif	25 intervenants travaillant avec joueurs de eSport professionnels (28,84 ± 5,93)	Stratégies d'adaptation et confiance en soi	Given the competitive nature of esports (e.g., maintaining focus and adaptive coping) and the increasing interest from practitioners in addressing stress management issues, empirical evidence on stress management strategies is needed that is tailored to the unique demands of esports. To ensure that ethical and professional standards are being met, it is important to first explore the factors that practitioners perceive to negatively impact the performance of esports players and the stress management strategies that are currently being used to support these players. Therefore, an online survey of 25 practitioners was conducted with results highlighting a variety of factors that were perceived to negatively impact players' performance such as players' ability to cope and lack of self-confidence. In addition, stress management strategies used before and after competition most frequently included strategies such as imagery, breathing

							techniques, and social support. Future research directions, limitations, and practical implications are discussed.
Musculoskeletal pain is common in competitive gaming: a cross-sectional study among Danish esports athletes	Lindberg et al.	2020	Danemark	Transversal	188 joueurs d'eSport	Sites de douleur et fréquence de la douleur, participation à l'eSport, activité physique, comportements de recherche de soins.	Objectives The interest for competitive esports is growing. Little is known regarding musculoskeletal (MSK) pain among esports athletes. We aimed to investigate (1) the prevalence of MSK pain, (2) the association between MSK pain and esports-related training volume and (3) the association between MSK pain and physical activity levels.Methods Athletes aged 15–35 years who participated in structured esports through a computer-based game were eligible for inclusion. Participant demographics, hours/week spent on esports, self-report MSK pain sites, pain frequency, sleep, care-seeking behaviour and physical activity levels were collected through online questionnaires. The primary outcome was any MSK pain in the body during the previous week.Methods Athletes aged 15–35 years who participated in structured esports through a computer-based game were eligible for inclusion. Participant demographics, hours/week spent on esports, self-report MSK pain sites, pain frequency, sleep, care-seeking behaviour and physical activity levels were collected through online questionnaires. The primary outcome was any MSK pain in the body during the previous week.Results Of 188 included athletes, 42.6% reported MSK pain. The most common pain site was the back (31.3%). Athletes with MSK pain participated in significantly less esports training compared with athletes without MSK pain (mean difference −5.6 hours/week; 95% CI −10.6 to −0.7, p=0.035). There was no significant difference in physical activity levels between groups (mean difference 81.1 metabolic equivalent of task-minutes/week; 95% CI −1266.9 to 1429.1, p=0.906).Conclusion Back pain is common among esports athletes. Athletes with MSK pain participated in less esports training compared with those without pain, suggesting a potentially negative effect of

							pain on esports participation.
Disordered gaming in esports: Comparing professional and non-professional gamers	Maldonado-Murciano et al.	2022	Monde	Transversal	Joueurs professionnels (n = 2,867) et joueurs récréatifs (n = 2,867)	Temps de jeu, dépendance au jeux vidéo	The American Psychiatric Association (APA) proposed 'Internet Gaming Disorder' (IGD) as a tentative disorder (APA framework) in 2013 and in 2019 the World Health Organization (WHO) has fully recognized 'Gaming Disorder' (GD) as a mental health disorder (WHO framework). These two frameworks have not yet been jointly investigated in the context of esports. The present study aims to investigate the feasibility of the APA and WHO frameworks for disordered gaming among professional and non-professional gamers and to ascertain the suitability of existing psychometric tools for use in esports. Methods: A sample of 5,734 gamers (Mage = 21.47 years, SD = 6.69 years; 6.94% female) recruited through an online survey prior to the COVID-19 pandemic that included an age and gender matched group of professional (n = 2,867) and non-professional gamers (n = 2,867) was investigated. Pairwise comparisons, measurement invariance (MI), and latent mean difference tests were conducted to distinguish the two groups of gamers. Results: Overall, professional gamers showed greater time spent gaming and prevalence of disordered gaming than non-professional gamers. Additionally, MI was supported and both disordered gaming levels and latent means were significantly higher among professional gamers when compared to non-professional gamers across both APA and WHO frameworks. Conclusions: Esports is cross-sectionally associated with greater disordered gaming vulnerability through increased time spent gaming and disordered gaming prevalence rates. Furthermore, the APA and WHO frameworks are viable in the context of esports gaming with existing assessment tools being effective in the assessment of disordered gaming in esports. The results and implications are further discussed in light of the extant literature.
Exploring esport players'	Mechelin et al	2023	États-Unis	Transversal	13 membres d'une communauté de	Expériences, identité et motivation vis-à-	This study aimed to explore esports fans' motivation, experiences and well-being.

motivation, experiences, and well-being					eSport	vis le jeu	Guided by the serious leisure perspective and self-determination theory, this study focused on the community of Super Smash Brothers (SSB). This study adopted a qualitative approach and interviewed 13 members with different types of involvement with the community. The results showed that participants' continuous involvement with the activity is motivated by pursuing personal and social benefits as well as their serious pursuit of esport and their identity as an SSB community member. The esports experiences also improved their well-being through enhancing their social well-being, improving their quality of life and satisfying their needs of autonomy, competence, and relatedness. Lastly, the finding showed that despite the digital nature of esports, the onset of the pandemic has negatively impacted player experiences and re-emphasised the importance of attending in-person events. Based on the findings, this study discussed how to reconceptualise esports as well as highlighted the need for more future research focusing on the positive effects of esports.
Sleep Characteristics in Esport Players and Associations With Game Performance: Residual Dynamic Structural Equation Modeling	Moen et al.	2022	Norvège	Suivi de cohorte (2 mois)	27 jeux de eSport au secondaire	Qualité, duré, début et fin du sommeil, temps passé devant un écran et performances	The current study aimed to examine sleep characteristics of esport players and the stipulated effects of game performance on consecutive sleep characteristics using residual dynamic structural equation modeling (RDSEM). A sample of 27 Counterstrike players with a mean age of 18½ years participated in the current study. Sleep was detected over a period of 56 days with a Somnofy sleep monitor that utilizes an impulse radio ultra-wideband puls radar and Dopler technology, and weekly game performance was reported by the players. The results showed that esport players' sleep characteristics were in the lower levels of recommended guidelines and that sleep onset started later and sleep offset ended later in the morning compared with athletes from other traditional sports. The esport players displayed stable patterns in sleep onset, sleep offset, time in bed, sleep efficiency and non-REM respiration rates per minute

							(NREM RPM). On the between-person level, esport players with better game performance spent more time sleeping (r = 0.55) and scored lower on NREM RPM (r = −0.44). Unstandardized within-person cross-lagged paths showed that better game performance predicted subsequent earlier sleep offset. The within-level standardized estimates of the cross-lagged paths revealed that participants with better game performance spent subsequently more time in deep sleep (0.20), less time in light sleep (−0.14), less time in bed (−0.16), and displayed lower NREM RPM (−0.21), earlier sleep offset (−0.21), and onset (−0.09). The findings of better game performance being related to better sleep are discussed in terms of existing knowledge on how stress responses elicitated by poor performance might impact on non-REM respiration rates and sleep.
Perspectives of eFootball Players and Staff Members Regarding the Effects of Esports on Health: A Qualitative Study	Monteiro Pereira et al.	2020	Portugal	Qualitatif	14 joueurs élites et 4 intervenants	Impact du eSport sur la santé des joueurs et moyens pour l'améliorer	Recently, esports have been argued to impact esports players' health, particularly for those competing at higher levels. Esports are a relatively new phenomenon, and an inside perspective regarding esports players' needs and experiences is essential to promote adequate health support for this population. Thus, in this qualitative study, we explored the perspectives of elite esports players and staff members regarding the effects of esports participation on health. Ten semi-structured interviews were performed with members of the Portuguese FIFA (i.e. FIFA EA Sports®) eFootball National team (i.e. five elite electronic football players, one world-class electronic football player, two national team coaches, and two members of the esports department). Data analysis was undertaken following the principles of thematic analysis. We identified four major superordinate themes: health definition (1), factors of esports that impact mental (2) and mental health (3), and strategies to improve esports players' health (4). Esports-related factors such as gaming, competition, and performance were said to impact mental health, while equipment,

							facilities, and esports-related sitting time affect physical health. To minimise those risks, four main strategies were suggested: optimising and scheduling esports training, improving lifestyle habits with an emphasis on physical health, enhancing facilities and equipment, and improving health support, particularly with a mental health professional. Esports players and staff members are concerned and aware of esports' mental and physical demands. Understanding what esports players need and perceive about their health, complemented with the view of staff members, and their proposed strategies for health promotion might help define and prioritise healthcare needs, which could help players and the broad esports community.
Team efficiency and network structure: The case of professional League of Legends	Mora-Cantallops et al.	2019	Monde	Retrospective	7.582 matches played by 244 professional teams worldwide.	Interactions between players in-game and ressources centralization.	nan
eSports: Digital Games and Its Future From the Traditional Athletes' and eSports Players' Perspectives.	Orsoglu et al.	2023	Turquie	Qualitatif	7 joueurs élites de eSports et 8 joueurs élites de basketball	Perspectives sur les carrière en eSport	Background: Discussions regarding the classification of eSports as a sport are still ongoing, primarily due to the distinctive features that differentiate them from traditional sports. Purpose: This study seeks to comparatively explore the perspectives of athletes on digital games and eSports with the goal of shedding light on the unique challenges and opportunities of eSports as a professional career. Method: This study seeks to comparatively explore the perspectives of athletes on digital games and eSports. To this end, the phenomenology model was employed in a qualitative study involving seven elite eSports players and eight elite basketball players. Focus group interviews were conducted, and thematic analysis was employed to analyze the resulting data. Results: Participants' viewpoints were examined across six themes, including the reasons for initiating their career, familial and environmental support, their perspectives on

							eSports, society's perspective on eSports, the impact of eSports on health, and the future of eSports. Discussion and Conclusion: The majority of participants viewed eSports as a sport and expressed optimism about its future. Despite acknowledging concerns about the public's negative perception of eSports due to inadequate knowledge and health concerns, participants remained optimistic about its prospects.
Level of physical activity of Indonesian esport athletes in the piala Presiden esport 2019	Paramitha et al.	2021	Indonésie	Transversal	50 athlètes de eSport (age =21.5 ± 1.01)	Activité physique et IMC	Background: In the past years, Esport has been a phenomenon. It lies in a discussion of whether accepting esport as a part of sport categories or not. In fact, many argue about this because it has an impact on the physical activity and lifestyle of the players. This study focuses on the analysis of physical activity and lifestyle of esport athletes competing in annual sporting events throughout Indonesia. Method: In this study data collected from 50 athletes consisting of all men. The measurement method used in measuring the level of physical activity is the International Physical Activities Questionnaire (IPAQ). Result: From the completed questionnaire, it was found that the level of physical activity of the athletes reached 3120.2 (± 24.3) METs. This figure shows that athletes are still included in the category of high physical activity. Conclusion: The average level of physical activity of esport athletes is in the high category.
Examination of Stress and Coping Methods among Esports Players: A Qualitative Study	Polat et al.	2023	Turquie	Qualitative	8 joueurs universitaires	Facteurs de stress et stratégies d'adaptation	Introduction: Esports players experience excess stress due to performance expectations. Aim: This qualitative study was performed with 8 participants about the stress experience and stress coping strategies of esports players. Method: Voice recordings were made in the study which used the focus group interview method with a semi-structured leading question form about features related to stress and coping. Data were analyzed by identifying thematic content. Results: Data revealed that players experienced stress due to excitement before matches, individual performance concerns, competitors displaying good

							performance during games, lack of communication between the team and the desire to win the match. Esports players were identified to use emotion-focused coping methods more than other coping methods in order to deal with stress. Conclusions: The study recommends that information be given to esports players about what they can do in relation to stress management for effective coping with stress (like nutrition, sleep, physical activity, social support, positive thinking, breathing and relaxation exercises).
Longitudinal analysis of stressors, stress, coping and coping effectiveness in elite esports athletes	Poulus et al.	2022	Océanie	Cohort study	6 joueurs de eSport professionnel (age = 21 ± 1,90)	Facteurs de stress et leur intensité, perception de défi/menace, stratégie d'adaptation et leur efficacité	Objective: The current study aimed to longitudinally examine the stressors, stress appraisal, coping, and coping effectiveness experienced by elite esports athletes. Design : Six elite male League of Legends (LoL) athletes, competing in the Oceanic Challenger Series (OCS), completed diaries over the 2020 competitive season (87 days). Method : Athletes completed weekly diaries after three events: solo training, team training, and competitive matches. Each diary collected data on the stressors experienced, stressor intensity and threat/challenge perception (appraisal), coping strategies used, and perceived coping effectiveness. Result : General performance, outcome, critical moment performance, and teammate mistakes accounted for 55% of the stressors reported. More stressors were reported in competitive diaries than in training diaries. Competitive stressors were rated as being more intense than training stressors. There were no differences in overall challenge and threat perception, but performance stressors were more likely to be perceived as a challenge, and teammate stressors were more likely to be perceived as a threat. Problem-focused coping (PFC) was the most frequently employed coping strategy. PFC and emotion-focused coping (EFC) strategies were perceived as more effective at reducing stress than avoidance coping (AC). Conclusion : Elite LoL athletes experienced a small number of reoccurring stressors over an 87-day competitive period. Athletes reported more

							stressors around competitive matches and perceived competitive stressors as more intense than team and solo training stressors. Similarly to traditional sports athletes, PFC strategies were the most frequently employed and, PFC and EFC were rated as being more effective than AC.
A qualitative analysis of the perceived determinants of success in elite esports athletes	Poulus et al.	2022	Canada et Océanie	Qualitatif	7 joueurs professionnels de eSport (age = 24 ± 4,20)	Stratégies d'adaptation et autres facteurs psychologiques de performance	The current study aimed to qualitatively investigate the perceived determinants of success in professional esports athletes. Guided by the bioecological model (Bronfenbrenner & Morris, 2006), thematic analysis was used to explore elite esports athletes' perceptions of success determinants. Semi-structured interviews were conducted with seven elite esports athletes. The interviews were used to investigate players' psychology when playing well, training in elite esports, and working in esports teams. Deductive and inductive analyses were conducted to capture the core themes of success in esports within the bioecological model. When playing well, elite esports athletes experienced high levels of confidence, uninterrupted focus, and flow states. Elite esport athletes use mental strategies to help regulate their emotions and remain mindful in the presence of "tilt". Furthermore, breathing techniques and tactical breaks were used when players felt nervous or when trying to "reset" from a stressful situation. When working in elite esport teams, players reported using strategies to improve team cohesion and that the biggest challenge was interpersonal disagreements. The results contribute to the growing body of literature highlighting the psychological similarities between elite esports and traditional sports athletes and serve as an index for future research into high-performance in esports.
The influence of an esports-adapted coping effectiveness training (E-CET) on resilience,	Poulus et al.	2023	Océanie	Mixte	5 joueurs professionnels de eSport (age = 20,4 ± 1,52)	Efficacité des strategies d'adaptation, peformances subjectives, détresse psychologique, bien-être et résilience.	This study aimed to develop, and pilot esports-adapted coping effectiveness training (E-CET) and measure its influence on coping effectiveness (global and specific), subjective performance, mental health (psychological distress and wellbeing), and resilience. Five elite male League of Legends players

mental health, and subjective performance among elite league of Legends players: A pilot study.							competing in the League of Legends Circuit Oceania participated in a mixed methods research design. The effects of E-CET were measured using a within-subjects quasi-experimental design (i.e., pre-to-post, no control group). To measure the effects of E-CET on specific stressors, a longitudinal diary design was used. Players participated in a 2-h session of E-CET and a 45-min follow-up workshop. The 2-h workshop delivered content on two conceptual areas: (1) developing awareness of the stress and coping process; and (2) how to cope with stress. Players completed pre-intervention, post-intervention, and follow-up measures and twice-weekly stress journals. E-CET led to increases in players' perceived coping effectiveness and subjective performance, but there were no changes in psychological distress, psychological wellbeing, and resilience. However, the results indicate some positive signs for future coping interventions with League of Legends players and iterations of E-CET. The E-CET program appears to provide an opportunity to improve performance and mental health for esports players. • E-CET positively influences coping effectiveness and in-game performance. • Future iterations of E-CET could positively influence player mental healt. • Online interventions with survey and diary measurements appear feasible in esports. [ABSTRACT FROM AUTHOR]
Longitudinal analysis of stressors, stress, coping and coping effectiveness in elite esports athletes	Poulus et al.	2022	Océanie	Qualitatif	6 joueurs professionnels de eSport (age = 21 ± 1,90)	Sources de stress en entrainement et competition, strategies d'adaptation	The current study aimed to longitudinally examine the stressors, stress appraisal, coping, and coping effectiveness experienced by elite esports athletes. Six elite male League of Legends (LoL) athletes, competing in the Oceanic Challenger Series (OCS), completed diaries over the 2020 competitive season (87 days). Athletes completed weekly diaries after three events: solo training, team training, and competitive matches. Each diary collected data on the stressors experienced, stressor intensity and threat/challenge perception (appraisal), coping strategies used, and perceived coping effectiveness. General performance, outcome,

							critical moment performance, and teammate mistakes accounted for 55% of the stressors reported. More stressors were reported in competitive diaries than in training diaries. Competitive stressors were rated as being more intense than training stressors. There were no differences in overall challenge and threat perception, but performance stressors were more likely to be perceived as a challenge, and teammate stressors were more likely to be perceived as a threat. Problem-focused coping (PFC) was the most frequently employed coping strategy. PFC and emotion-focused coping (EFC) strategies were perceived as more effective at reducing stress than avoidance coping (AC). Elite LoL athletes experienced a small number of reoccurring stressors over an 87-day competitive period. Athletes reported more stressors around competitive matches and perceived competitive stressors as more intense than team and solo training stressors. Similarly to traditional sports athletes, PFC strategies were the most frequently employed and, PFC and EFC were rated as being more effective than AC.
The Relationship of Physical Activity and Mental Toughness in Collegiate Esports Varsity Student-Athletes	Roncone et al.	2020	États-Unis	Transversal	34 joueurs de eSport universitaire (age = 20,02 ± 1,46)	Force mentale, activités physiques intenses et sédentarité	Recently, scholars have begun to investigate the mental skills necessary for optimal performance in esports (Banyai, Griffiths, Király, & Demetrovics, 2018). However, little is known about how physical activity levels are related to the mental toughness of esports collegiate athletes. Therefore, the purpose of this study was to analyze the relationship between physical activity and mental toughness of esports athletes. Thirty-four esports collegiate varsity athletes completed three separate questionnaires, including the Sports Mental Toughness Questionnaire (SMTQ), the International Physical Activity Questionnaire (IPAQ), and a demographic questionnaire. Results from the SMTQ revealed varsity collegiate esports athletes scored an average of 43.74, indicating a high level of mental toughness. In addition, scores on the IPAQ showed that 97% (n = 33) of the athletes reported between at least two days and

							a maximum of seven days per week of vigorous physical activity. Further, results revealed a significant negative relationship between the amount of sitting per day and mental toughness (r = -.478; p = .001). Implications for practice include the importance of esports coaches incorporating physical activity into the training program of varsity esports athletes.
Media Consumption, Stress and Wellbeing of Video Game and eSports Players in Germany: The eSports Study 2020	Rudolf et al.	2022	Germany	Transversal	1038 joueurs d'eSport; 26 joueurs professionnels (âge = 20,90 ± 3,30), 36 anciens joueurs professionnels (âge = 26,60 ± 4,20), 282 joueurs amateurs (âge = 22,10 ± 4,70), 545 joueurs réguliers (âge = 22,90 ± 5,50), 149 joueurs occasionnels (âge = 24,50 ± 5,90)	État de santé, consommation de médias, bien-être, temps sédentaire et activité physique, durée du sommeil, IMC	The popularity of video gaming and eSports is increasing rapidly. However, most research focuses on the economical features and psychological consequences of gaming and only little is known about the health behavior of the players. Therefore, this study is a follow-up of the eSports Study 2019 and further investigates the health and health behavior of video game and eSports players in Germany. This cross-sectional study, conducted between April and September 2019, includes 1038 players (91.2% male; 23.0 ± 5.4 years; body mass index: 24.8 ± 5.0 kg/m ²) who provided data regarding their health status, physical activity, sleep, media consumption, stress and wellbeing via a web-based survey. Descriptive statistics were performed on all questions. Linear regressions were used to examine the relation between media consumption, wellbeing and stress. Almost all respondents classified their health status as “good” or better (92.5%). The average sedentary and physical activity time was 7.2 ± 3.5 h/day and 8.8 ± 10.7 h/week, respectively. Respondents slept for 7.5 ± 1.3 h/night on weekdays and for 8.5 ± 1.5 h/night on weekends, but many were “sometimes” or more frequently overtired (53.1%). Daily duration of playing video games (230.4 ± 159.3 min/day) and watching livestreams and videos with (102.6 ± 101.7 min/day) and without gaming content (72.9 ± 88.5 min/day) were much higher than watching regular television (18.9 ± 49.1 min/day) or reading analog media (32.1 ± 53.5 min/day). In terms of stress and wellbeing, most players reported low stress levels (13.8 ± 5.7) and reached a moderate

							average score of 60.1 ± 16.4 out of 100 points in the WHO-5 Well-Being Index. Linear regressions revealed no relevant significant associations. The results indicate good subjective health and health behavior of the target group. However, the high amounts of screen-based media-consumption, as well as the moderate stress and wellbeing levels show potential for improvement. In addition, the target group consumed high amounts of digital media in reference to gaming, while traditional media consumption was distinctly low. Consequently, media campaigns that address health promotion in this target group should use the platforms of digital media instead.
Sleep quality of professional electronic-sport athletes (Counter Strike: Global Offensive)	Sanz-Milone et al.	2021	N/A	Transversal	12 joueurs professionnels de eSport (age=21±0.5)	Sleep quality, chronotypes, sleepiness	Background: E-Sports athletes stay for long periods in front of televisions or monitors, with this, it is speculated that there are alterations on their sleep quality and quantity. Aims: This study aimed to evaluate the sleep quality of professional e-Sports players, specifically the players of the Counter-Strike: Global Offense (CS: GO) game.Methods & Results: The study was carried out with 12 young people between 17 and 25 years old. To analyze the sleep pattern, the following questionnaires were applied: Pittsburgh sleep quality index (PSQI), Morningness-eveningness Questionnaire (MEQ), Epworth sleepiness scale (EES), and Sleep Diary for 7 consecutive days. The results showed that the players were 21.58±0.5 years, most had an evening type chronotype, followed by the neither chronotype. The e-Sports athletes showed poor sleep quality, increased sleep latency, reduced sleep efficiency, and were borderline for excessive daytime sleepiness. Positive correlations have been demonstrated for: excessive daytime sleepiness, sleep latency and sleep efficiency with age, with these factors being worse in younger athletes. Conclusion: In this context, the results suggest that CS: GO e-Sports athletes presented poor sleep quality, which were more pronounced in younger athletes.
Dietary behavior of	Soffner et al.	2023	Allemagne	Transversal	Échantillon total : n=808. 20 joueurs	Habitudes de vie, pratique de jeu vidéo,	Background: Video gaming and competitive gaming (esports) are gaining more and more

video game players and esports players in Germany: a cross-sectional study.		professionnels d'eSport (âge moyen = 22,8 ± 4,50), 15 joueurs professionnels d'eSport à la retraite (âge moyen = 28,4 ± 7,40), 187 joueurs amateurs d'eSport (âge moyen = 24 ± 7,30), 452 joueurs réguliers (âge moyen = 23,9 ± 6,50) et 134 joueurs occasionnels (âge moyen = 25,2 ± 7,60).	IMC, activités physiques	recognition in society as well as in research. Increasingly, health-related topics are the focus of research on video game and esports players. Although video gaming is often associated with energy drinks and fast food, no studies have yet examined the players' dietary behavior. Therefore, the aim of this cross-sectional study is to investigate the dietary behavior and additional health-related data of video game players and esports players in Germany. Methods: Between July and October 2020, 817 participants (87.1% male; 24.2 ± 6.9 years), divided into video game players and esports players, were surveyed via an online questionnaire about their dietary, health, and gaming behaviors. Descriptive statistics were performed on all questions. To investigate statistically significant differences between video game players and esports players, the Mann–Whitney-U-Test and Kruskall-Wallis-Test were used. Partial Spearman correlations were used to examine possible associations between dietary behavior, health status, well-being, and video game playing time. Results: Water was the primary source of fluid intake for the players (10.9 ± 7.0 l/week). The average weekly consumption of energy drinks was 0.4 ± 0.9 L. Energy drinks (rho = 0.14; $p < 0.01$) as well as soft drinks (rho = 0.14; $p < 0.01$) are positively correlated with the video game playing time. Participants ate 7.5 ± 10.4 servings of fast food per month, which has a positive association with video game playing time (rho = 0.13; $p < 0.01$). In contrast, vegetables (1.7 ± 1.6 servings/day) and fruits (0.9 ± 1.0 servings/day) are eaten almost daily. Conclusion: In this survey, the dietary behavior of video game players and esports players is similar to that of the German general population. Nevertheless, there is a need for improvement. Especially energy drinks, which are already documented to have adverse health effects, should be limited. In addition, the consumption of fast food and meat should also be reduced, and healthier foods such as fruits and vegetables should be increased instead.

							Early education and support regarding the associated risks with unhealthy foods is important within the target group.
Examining the Predictors of Mental Health in Esport Competitors	Smith et al.	2022	Royaume-Unis	Transversal	313 joueurs compétitifs de eSport scolaire (age=19,8 ± 2,00).	Sources de stress, qualité du sommeil, épuisement, phobie sociale et santé mentale	Few research studies have examined the predictors of mental ill health in esports. This study addresses that gap by investigating stressors, sleep, burnout, social phobia anxiety and mental ill health in esport athletes. An online survey was disseminated to competitive student esport athletes (n = 313) residing in the UK. The survey included measures of stressors resulting from competing in esports, sleep quality, burnout, and social phobia, as well as outcome measures of mental ill health. Hierarchical regression analyses examined these relationships. All the hypotheses were supported, with stressors significantly predicting sleep quality, burnout, and social phobia anxiety, and stressors, sleep quality, burnout, and social phobia anxiety were all significant positive predictors of mental ill health. The strength of these predictions varied, for example, the daytime dysfunction subscale of sleep was a strong predictor of all outcome variables; two subscales of burnout, reduced sense of accomplishment and exhaustion significantly predicted each of the three mental ill health outcome variables, and two subscales of social phobia anxiety, fear and avoidance, significantly predicted mental ill health. Our study has important implications for player health in esports, highlighting interventions that could target specific aspects of stress, sleep, burnout, and social phobia anxiety to improve the mental health of those who compete in esports.
Identifying Stressors and Coping Strategies of Elite Esports Competitors	Smith et al.	2019	Royaume-Unis	Qualitatif	7 joueurs professionnels de eSport (age = 20,57 ± 2,07)	Sources de stress, strategies d'adaptation, épuisement, phobie sociale et sommeil	Researchers have examined some of the psychological aspects of competing at a high level in esports. The present study aims to build on this literature by examining the various stressors faced and the associated coping strategies employed by seven esports competitors. The interviews were inductively analysed, and the findings illustrated a range of internal (e.g., communication issues, lack of shared team goals) and external (e.g., event

							audience, media interviews) stressors that the participants faced. Following this, the coping strategies used to deal with these stressors were deductively analysed. A number of emotion- (e.g., breathing, relaxation), problem- (e.g., intra-team communication after matches), and approach- (e.g., team camps, delegating roles) coping strategies were described by participants. Avoidance coping strategies were predominantly highlighted as being used during games. Results are considered in line with how applied practitioners might support players to develop strategies to deal with stressors, which might in turn lead to performance enhancements.
Physiological and Cognitive Functions Following a Discrete Session of Competitive Esports Gaming	Sousa et al.	2021	États-Unis	Suivi de cohorte prospectif	17 joueurs universitaires de eSport (age = 20,10 ± 1,80)	Acuité visuelle, Tension artérielle, flexibilité cognitive, inhibition, vitesse psychomotrice, fréquence cardiaque	Competitive organized electronic video gaming, termed “esports,” has become an international industry. The physiological and cognitive health results of prolongede sport practice and competition have not been adequately studied. The current study examined physiological and cognitive changes after a session of esport gameplay for two types of games, first-person shooter and multiplayer online battle arena games. Increases in systolic blood pressure, increases in speed, and decreases in accuracy and inhibitory processes were found for esport gamers overall. For peak heart rate change, first-person shooter games elicited a larger change than did multiplayer online battle arena games. These results have implications for the management of esport player cognitive and physical health as well as for the optimization of performance in competitive esport tournaments.
E-sports and sports cyberculture: perspectives of social actors in this universe	Silva dos Santos	2022	Brésil	Qualitatif	2 joueurs professionnels de eSport (19 et 22 ans) et un streamer professionnel de 37 ans	Valeurs au sein de l'eSport, professionnalisation, ascension sociale, stéréotypes et préjugés, par rapport aux sports traditionnels	The present study is dedicated to an analysis of e-sports, understanding them as a way of expressing sports culture in accordance with the contemporary social paradigm that involves cyberculture. Its main objective is to look into the senses and meanings of sports cyberculture for the social actors that make up the e-sports universe. Thus, in a qualitative approach, the semistructured interview technique was used with 2 cyberathletes and 1 streamer, all

							professionals. The results show that sports cyberculture is appropriated by these social actors with expectations for career building, taking into account the growth of both the modality and its audience amidst perceptions and experiences of prejudice. It is concluded that sports cyberculture produces and reflects practices, attitudes and values that are similar to the traditional way of experiencing sports, reproducing stereotypes and prejudices, dreams of social ascension, and professionalization prospects.
Sleep characteristics in esport players and associations with game performance	Vatn et al.	2021	Norvège	Étude de cohorte	27 joueurs de eSport au secondaire (age= 18.59 ± 2.80)	Quantité et qualité de sommeil, performances	The current study aimed to examine sleep characteristics in esport players and the stipulated effects of esport game performance on subsequent sleep using residual structural equation modeling (RDSEM). 27 esport players with a mean age of 18 ½ years who performed in the esport game Counter-Strike: Global Offensive (CS: GO) participated in the current study. Sleep was detected over a period of 56 consecutive days with a Somnofy sleep monitor that utilizes an impulse radio ultra-wideband pulse radar and Doppler technology. Results showed that the esport players were in the lower levels of the recommended guidelines for total sleep time and that sleep onset started later and sleep offset ended later than what is found in other sports. Moreover, the sleep efficiency and sleep onset latency found in the current study imply that the esport players struggled to fall asleep at night and had frequent awakenings from sleep onset to sleep offset. The present study results also showed considerable individual differences in sleep between the esport players who participated in the study and that sleep patterns were relatively consistent within players. The esport players displayed stable patterns regarding sleep onset, sleep offset, time in bed, sleep efficiency, and NREM RPM. Unstandardized cross-lagged paths showed that better esport game performance predicted earlier sleep offset. The standardized estimates of the cross-lagged paths revealed that better esport game performance in the current sample was a

							significant predictor of more time in deep sleep, less time in light sleep and in bed, lower NREM RPM, earlier sleep onset, and earlier sleep offset. The between-person associations showed that the esport players who performed better also had significantly longer total sleep time and scored lower on NREM RPM than the esport players who didn´t score as well on their game performances. The findings are discussed in terms of existing knowledge on the importance of sleep for optimal functioning and in light of the esport players´ game performances.
The Effects of Perceived Social Support, Family Climate, and Adult Attachment Styles on Digital Game Addiction in Esports Players.	Yilmaz et al.	2022	Turqui	Transversal	47 joueurs professionnels de eSport, 164 joueurs récréatifs (age = 20.65 ± 1.92)	Support social, climat familial, style d'attachement et dépendance aux jeux vidéo	There have been many different game designs that users find suitable and numerous devices on which various games can be played. The development of digital games over the last 30 years has led to the creation of electronic sports . The main purpose of this study is to examine the relationship between electronic sports players' perceived social support, family climate, adult attachment styles, and game addiction. The present study examined the game addiction levels of 211 Turkish electronic sports players who are members of the university electronic sports societies in Ankara. The majority of the participants in this research are male and gamer-type players. Players play games almost every day of the week (38.9%), spend 2--4 hours a day on games (50.7%), and watch electronic sports streams (49.8%) for an hour in a day. Half of the players (57.3%) earn an income from the games they play. Simple linear regression analysis indicated that having a fearful attachment style and playing frequently had a significant impact on game addiction.
Identity transformation, stigma power, and mental wellbeing of Chinese eSports professional players.	Zhao et al	2021	China	Qualitatif	24 joueurs professionnels de eSport, 4 entraineurs et 7 gestionnaires	Transformation identitaire, bien-être et acceptation sociale	In China, the expanding eSports culture has produced a vast cohort of video-game players whose peak age ranges between 16 and 22 years. This study explores the dynamic identity transformation and mental wellbeing development processes of eSports professionals in a risk-prone society. It comprises in-depth interviews with players, coaches, managers, and commentators working

	in 15 top eSports clubs in the Chinese cities of Shanghai, Guangzhou, Suzhou, and Chengdu. We find eSports is perceived as non-secure, casual, and irregular by the Chinese public and that the mental changes experienced by eSports professionals throughout their careers have been significantly influenced by a more sophisticated form of state power and social norms, including cultural cognitive beliefs, economic stimulation, and authority attributions.

Annexe 2 :

Annexe 3 : Revue des instruments de mesure

Annexe 3 : Recensement des outils de mesure

Thème	Sous-thème	Nom du questionnaire	Acronyme	Variables mesurées	Validité	Fiabilité	Fidélité	Référence originale	Article recension des écrits
Psychologie	Addiction	Nomophobia questionnaire	NMP-Q	Nomophobie subjective chez l'adulte	r = 71	Alpha Cronbach = 0.90 - 0.945		https://www.sciencedirect.com/science/article/abs/pii/S0747563215001806	https://www.mdpi.com/2227-9032/10/2/257
		Internet addiction scale	IAS	Dépendance à internet	r = 0.79 (9% variabilité)	Alpha Cronbach = 0.95		https://psycnet.apa.org/fulltext/2004-21853-010.html	https://www.mdpi.com/2227-9032/10/2/257
		Yale food addiction scale	YFAS 2.0 SF	Dépendance à la nourriture	r = 0.46 - 0.61	Alpha Cronbach = 0.93		https://www.sciencedirect.com/science/article/abs/pii/S0195666308006223	https://www.mdpi.com/2227-9032/10/2/257
		Compulsive Internet Use Scale	CIUS-14	Habitude de jeux problématique	N/A	Alpha Cronbach = 0.91		https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10853400/	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10853400/
		Internet Gaming Disorder Scale-Short Form	IGDS9-SF	Dépendance jeux vidéo	r = 0,816	Alpha Cronbach = 0,84		https://link.springer.com/article/10.1007/s11469-018-9925-5	https://www.sciencedirect.com/science/article/pii/S0306460322001083
								https://link.springer.com/article/10.1007/s11469-018-9890-z	
		Gaming Disorder Test	GDT	Dépendance jeux vidéo	Explication de la variance = 0.73	Alpha Cronbach = 0.879 (Turkish), 0.84 (global, Mandarin et Anglais)		http://earsiv.cankaya.edu.tr:8080/handle/20.500.12416/4617	https://www.sciencedirect.com/science/article/pii/S0306460322001083
								https://www.mdpi.com/2077-0383/8/10/1691	
								https://link.springer.com/article/10.1007/s11469-019-00088-z	
								https://www.mdpi.com/2077-0383/8/10/1691	
								https://link.springer.com/article/10.1007/s11469-019-00088-z	

	Game Addiction Scale	GAS	Dépendance jeu vidéo	r = 0.63 (0.483 à 0.862)	Alpha Cronbach = 0.96	https://psychiatry-psychopharmacology.com/en/online-game-addiction-in-a-sample-from-turkey-development-and-validation-of-the-turkish-version-of-game-addiction-scale-1680	https://www.researchgate.net/publication/363563879_The_Effects_of_Perceived_Social_Support_Family_Climate_and_Adult_Attachment_Styles_on_Digital_Game_Addiction_in_Esports_Players
						https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5529472/	
	Young's internet addiction scale	YIAS	Dépendance jeux vidéo	N/A	N/A	N/A	https://www.sciencedirect.com/science/article/pii/S0022395612000052?casa_token=MWecXdujNDQAAAAA:bLQjxBt41l_9Nt5upEIc_o4ZOaIDaynTgpBfsi-BKzywUWyBt3akhYDtMDW2LpgRwIrH0s0vMLw#bib80
Anxiété	General anxiety disorder Screener	GAD-7	Anxiété généralisée	r = 0.83 (0.76 - 0.90)	Alpha Cronbach = 0.89	https://www.jstor.org/stable/pdf/40221654?casa_token=qmqsQI99igcAAAAA:LBh8CYyS83dilkS5UlLjs56__817UZWtcxSyTYrOgcJLHYfstcW9lbtWvzgjn-yR2fwsFxq0eZjp7iDMrMrYzuxzgtoh1K1qtSCWebRqVV1CTAheMriY	https://www.mdpi.com/2227-9032/10/2/257
						https://www.tandfonline.com/doi/pdf/10.2147/IJGM.S312465	
	Journal de stresseurs		Type de stresseurs avant, pendant, après match	N/A	N/A	https://www.tandfonline.com/doi/abs/10.1080/02640410600630654	https://www.sciencedirect.com/science/article/pii/S1469029221002119?casa_token=bOdOiKbIOXMAAAAA:3LL5t-H-6F5ZQyw4FEDhJu4N53A6Ym45zXn0Q8XQB6LSv4Ru9Dps0ADaoV5c8nXjaRX60hAwQvo

	Perceived Stress Scale	PSS	Perception personnelle de stress	r = N/A	Alpha Cronbach = 0.84 - 0.86		https://link.springer.com/article/10.1186/s12888-020-02851-2	https://www.frontiersin.org/journals/sports-and-active-living/articles/10.3389/fspor.2022.665604/full?ref=christian-staedter.com
	Social Phobia Inventory	SPIN	Anxiété sociale	r = 0.63 - 0.87	Test - Reset = 0.78 - 0.86		https://www.sciencedirect.com/science/article/pii/S0005796705001920?casa_token=X0puYzaAvaQAAAAA:sQ4FYsM_A6vDRZ7ZiZ9Z7CnLFF1MQM5Hq60Pnu5UVg5q9XXMX-YCAT_p906IWII9rVCZpOym10GU	https://www.mdpi.com/2227-9032/10/4/626
Motivation	Implicit association test	IAT	Niveau implicite de motivation à la réussite	N/A	r=0.49		https://www.sciencedirect.com/science/article/pii/S0092656604000145?casa_token=4LY25srRiKEAAAAA:S19fcqAwmIVBf_qUqX1hocW1F0JS52UybvirVzTIT_7iWQ8U1j1xRueSuolDRa28XLsx2T6Jb4u#FIG1	(PDF) What Makes a Champion: The Behavioral and Neural Correlates of Expertise in Multiplayer Online Battle Arena Games (researchgate.net)
	Motive for online gaming questionnaire	MOGQ	Motivation des joueurs	r = N/A	N/A		HYPERLINK "https://link.springer.com/article/10.3758/s13428-011-0091-y"https://link.springer.com/article/10.3758/s13428-011-	https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2020.01866/full
	Esport Participation Questionnaire		Attitude et contrôle des joueurs		Alpha Cronbach = 0.56 - 0.87		https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8656513/0091-y	https://www.researchgate.net/publication/359724254_Investigation_of_Hong_Kong_Students'_Esports_Participation_Intentions_Using_the_Theory_of_Planned_Behavior_Approach_A_Structural_Equation_Model
	Apprentissage autorégulateur		Stratégies	N/A	N/A	Kappa de Cohen = 0.78 – 1.00	https://www.tandfonline.com/doi/abs/10.1080/10413200252907761	Frontiers | “Because I'm Bad at the Game!” A Microanalytic Study

							of Self-Regulated Learning in League of Legends (frontiersin.org)
	Gaming Motivation Scale	GAMS	Motivation relié aux jeux vidéo	r = 0.72 - 0.89	Alpha Cronbach = 0.75	https://www.sciencedirect.com/science/article/abs/pii/S0191886912003017	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10853400/
Trouble mentaux	Beck Depression Inventory	BDI	Dépression	r = 0.93	Alpha Cronbach = 0.92	https://jamanetwork.com/journals/jamapsychiatry/article-abstract/487993	https://www.sciencedirect.com/science/article/abs/pii/S0022395612000052?casa_token=MWRYWLBQ3jAAAAAA:rCzjXxIeCw5NExMpmvl55MmhwFXBG9Y-RAiogz4apDFVAWHmgQoFulPbiV6nbKWeKcuzBD6a9f9d#bib59
	Index de détresse psychologique de l'enquête Santé Québec-14		Détresse psychologique	Validité factorielle = 65%	Alpha Cronbach = 0.90	https://journals.sagepub.com/doi/abs/10.1177/070674379303800510 https://rqrv.com/fr/instrument.php?i=80	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10853400/
	The Kessler Psychological distress scale		Détresse psychologique des 30 derniers jours	N/A	Alpha Cronbach = 0.83	https://psycnet.apa.org/record/2015-54038-001?casa_token=PyskhfDteXAAAAAA:owkEQ0F_rL-bX5WXQPKK3pgD2_NhWCDl_TEvYh5pN4grUeXjNjiy8FqCalftSXirQV0pHiSHAG5uX6IDM2tsnq1-Tg	https://www.sciencedirect.com/science/article/pii/S1469029223001346?casa_token=PSh-cOcfC8AAAAAA:GaPB4OPLk5sI7knYOKhyPkO6A-ubII-KvbE9Lpbbd4MDeZxxt-vBBAZbo60y7u1IVm1bE5LLhw#bib18
	Athlete Burnout Questionnaire	ABQ	Épuisement et dévalorisation	r = 0.31 (indice global SMBM), 0.29 (mesure de stress)	Test - reset = 0.57 - 0.65	https://www.sciencedirect.com/science/article/pii/S1469029218301225?casa_token=LcSRSHx_cCAAAAAA:3d2bs9eZ_VP7AbCxEoCGqUUwtVLDmabi-ohF0FoNVexkDCkJXp36Yf9KmzAvLFG9ts0ejBRODQfM	https://www.mdpi.com/2227-9032/10/4/626

	Patient Health Questionnaire	PHQ-9	Symptômes dépressifs sévères	Sensitivity of 84%, a specificity of 72% (≥10 had a sensitivity of 88% and a specificity of 88% for major depression.)	Alpha Cronbach = 0.89	https://onlinelibrary.wiley.com/doi/full/10.1046/j.1525-1497.2001.016009606.x	https://www.mdpi.com/2227-9032/10/4/626#B38-healthcare-10-00626
	Three dimension Distress Screener (basé sur le questionnaire quadridimensionnel sur les symptômes (4DSQ))		Symptôme de détresse vécu dans les dernières 4 semaines	Sensitivity (0.85) and specificity (0.78)	Test reset = 0.83	https://link.springer.com/article/10.1186/s13033-020-00397-0	https://www.mdpi.com/2227-9032/10/4/626#B38-healthcare-10-00626
Trait de personnalité	Eysenck's Impulsivity Scale		Traits d'impulsivité	r = 0.164 - 0.639	Cohérence interne : 0.74 - 0.85	https://psycnet.apa.org/doiLanding?doi=10.1037%2Ft05461-000 https://psycnet.apa.org/record/1998-12141-003	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10853400/
	Barratt Impulsiveness Scale-Korean version	BIS-K	Impulsivité cognitive, motrice et manque de préparation	N/A	alpha Cronbach = 0.79 - 0.83	https://onlinelibrary.wiley.com/doi/pdf/10.1002/1097-4679%28199511%2951%3A6%3C768%3A%3AAID-JCLP2270510607%3E3.0.CO%3B2-1?casa_token=dE5MtL-1LYgAAAAA:hZJBWutIh4KujttNgNCr-SlbL67cXmmQXw701NxTI5n0wjmhER7b4NaI1n4NUPkLdShuem5VWO4FCikQgQ	https://www.sciencedirect.com/science/article/pii/S002239561200005 2?casa_token=MWRYWLBQ3jAAAAAA:rCzjXxIeCw5NExMpmvl55MmhwFXBG9Y-RAiogz4apDFVAWHmgQoFulPbiV6nbKWeKcuzBD6a9f9d#bib59
	Big Five Inventory	BFI	Personnalité	N/A	N/A	John, O. P., & Donahue, E. M. (1991). The "Big Five" inventory: Versions4a and 5b.	(PDF) What Makes a Champion: The Behavioral and Neural Correlates of Expertise in Multiplayer Online

						Notfallmedizin Up2date, 18(5), 367–385.	Battle Arena Games (researchgate.net)
Estime	Rosenberg's Self-Esteem Scale		Estime de soi	N/A	Alpha Cronbach = 0.70 - 0.88	https://books.google.ca/books?hl=en&lr=&id=YR3WCgAAQBAJ&oi=fnd&pg=PP1&ots=rNW8C6fBPS&sig=zQj8dAiIzx5fgwahBndqvIWfVhw&redir_esc=y#v=onepage&q&f=false	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10853400/
						version française : https://onlinelibrary.wiley.com/doi/abs/10.1080/00207599008247865	
	Self- efficacy scale		Sentiment d'auto-efficacité	N/A	N/A	https://journals.sagepub.com/doi/10.2466/pr0.1982.51.2.663	(PDF) Esports for development? Exploring esports player profiles and their development and well-being outcomes (researchgate.net)
Coping	Esports-adapted coping effectiveness training	E-CET	Stratégie d'adaptation	N/A	N/A	https://www.tandfonline.com/doi/abs/10.1080/1612197X.2011.567104	https://www.sciencedirect.com/science/article/pii/S1469029223001346?casa_token=Vfr1rKfqlQ0AAAAA:ieCxpfPGJNgnIOsL3szrAst4VXZZeu1Fo8AXGrzWCLop2Cfoz7Z7SmSMQt45Y5KfJG27fYbgVUo
	Coping effectiveness		Efficacité d'adaptation globale	N/A	Alpha Cronbach = 0.69	https://www.tandfonline.com/doi/full/10.1080/13607860410001709719	https://www.sciencedirect.com/science/article/pii/S1469029223001346?casa_token=Vfr1rKfqlQ0AAAAA:ieCxpfPGJNgnIOsL3szrAst4VXZZeu1Fo8AXGrzWCLop2Cfoz7Z7SmSMQt45Y5KfJG27fYbgVUo
Fonction cognitive	Wisconsin Card Sorting Test	WCST	Fonction exécutive	N/A	N/A		https://www.sciencedirect.com/science/article/pii/S0022395612000052?casa_token=MWRYWLBQ3jAAAAAA:rCzjXxIeCw5NExMpmvl55MmhwFXBG9Y-

							RAiogz4apDFVAWHmgQoFulPbiV6nbKWeKcuzBD6a9f9d#bib46
	Voxel-based morphometry toolbox	VBM5.1	Traitement d'image	N/A	N/A		https://www.sciencedirect.com/science/article/pii/S0022395612000052?casa_token=MWRYWLBQ3jAAAAAA:rCzjXxIeCw5NExMpmvl55MmhwFXBG9Y-RAiogz4apDFVAWHmgQoFulPbiV6nbKWeKcuzBD6a9f9d#bib46
Résilience	Resilience scale	RS	Résilience	r = - 0.26 - 0.30	r = 0,76 - 0.91	https://typeset.io/pdf/development-and-psychometric-evaluation-of-the-resilience-2omx5awx	(PDF) What Makes a Champion: The Behavioral and Neural Correlates of Expertise in Multiplayer Online Battle Arena Games (researchgate.net)
	Connor-Davidson Resilience Scale	CD-RISC-10	Niveau de résilience	r = 0.46 - 0.68	Alpha Cronbach = 0.87	https://www.sciencedirect.com/science/article/pii/S1469029215300194?casa_token=NRcCMTSMZDgAAAAA:sJR_I87m1yjue67LOlE0qfUqyDgJaqv0coRFtVEs7727vuFq09C0m-OFQRNkXyF2i9zBbjCn81Uco4.pdf	https://www.sciencedirect.com/science/article/pii/S1469029223001346?casa_token=Vfr1rKfqlQ0AAAAA:ieCxpfPGJNgnIOsL3szrAst4VXZZeu1Fo8AXGrzWCLop2Cfoz7Z7SmSMQt45Y5KfJG27fYbgVUo
Bien-être	WHOQOL-BREF quality of life assessment		Qualité de vie	Validité discriminante = 2.8 - 39.1	Alpha Cronbach = 0.66 - 0.84	https://www.cambridge.org/core/journals/psychological-medicine/article/abs/development-of-the-world-health-organization-whoqolbref-quality-of-life-assessment/0F50596B33A1ABD59A6605C44A6A8F30	(PDF) Esports for development? Exploring esports player profiles and their development and well-being outcomes (researchgate.net)
	Performances subjectives		Niveau de satisfaction de performance subjective	N/A	N/A	https://journals.humankinetics.com/view/journals/tsp/17/3/article-p253.xml	https://www.sciencedirect.com/science/article/pii/S1469029223001346?casa_token=Vfr1rKfqlQ0AAAAA:ieCxpfPGJNgnIOsL3szrAst4V

								XZZeu1Fo8AXGrzWCLop2Cfoz7Z7SmSMQt45Y5KfJG27fYbgVUo
		Mental Health Continuum		Bien-être psychologique, émotionnel et social	r = 0.30 - 0.52	Alpha Cronbach = 0.74	https://onlinelibrary.wiley.com/doi/abs/10.1002/cpp.572?casa_token=C7Z0x-6XIOMAAAAA%3AoJtYzeYLPLSd47I4Rwc3eL3bLNnJYhhyOadkSXdFyy69pAP0pZJ8jsnJzzhYef7fUjyrSpP4Ip0Mn8Fs6A	https://www.sciencedirect.com/science/article/pii/S1469029223001346?casa_token=Vfr1rKfqlQ0AAAAA:ieCxpfPGJNgnIOsL3szrAst4VXZZeu1Fo8AXGrzWCLop2Cfoz7Z7SmSMQt45Y5KfJG27fYbgVUo
		Sports Mental Toughness Questionnaire	SMTQ	Force mentale	r = 0.43 - 0.53	Alpha Cronbach = 0.78	https://www.researchgate.net/publication/15384510_Distinguishing_Optimism_From_Neuroticism_and_Trait_Anxiety_Self-Mastery_and_Self-Esteem_A_Reevaluation_of_the_Life_Orientation_Test	FFsp2020-webcompress.pdf (ohahperd.org)
		WHO-Five Well-Being Index		Bien-être individuel	Sensibilité = 0,86 et la Spécificité = 0,81	Alpha Cronbach =N/A	https://karger.com/pps/article/84/3/167/282903/The-WHO-5-Well-Being-Index-A-Systematic-Review-of	Frontiers | Media Consumption, Stress and Wellbeing of Video Game and eSports Players in Germany: The eSports Study 2020 (frontiersin.org)
Sommeil	Problème de sommeil	Insomnia severity index	ISI	Insomnie	86.1% sensibilité et 87.7% spécificité	Alpha Cronbach = 0.90	https://academic.oup.com/sleep/article/34/5/601/2281474	https://www.mdpi.com/2227-9032/10/2/257
	Qualité	Pittsburgh Sleep Quality Index	PSQI	Qualité du sommeil	rhô = 89,6% de sensibilité et 86,5% de spécificité	Alpha Cronbach = 0.83, also 0.70 - 0.83	https://pubmed.ncbi.nlm.nih.gov/2748771/	https://www.tandfonline.com/doi/full/10.1080/07420528.20
							https://sleep.pitt.edu/wp-content/uploads/Study_Instruments_Measures/PSQI-Article.pdf	HYPERLINK "https://www.tandfonline.com/doi/full/10.1080/07420528.2021.1903480"Identifying electronic-sport athletes' sleep-wake cycle characteristics: Chronobiology International: Vol 38 ,

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	https://www.sciencedirect.com/science/article/pii/S1087079215000210?casa_token=SegIt4HhTuEAAAAA:KCBcIcFkTraIAru6zuZ3xd6A0MA0xJ3ABltT4Kfr4owLIen1ua3aRguSzAHTnwXY3ee0CLOgDRYs	https://www.mdpi.com/2227-9032/10