

# **Unveiling factors and contingencies influencing exhaustion in professional esports players: evidence from China**

## **Abstract**

### **Purpose:**

The rapid growth of professional esports has highlighted the lack of a universally recognised governing body to standardise operations and competition rules. This absence presents many challenges. A key concern is the wellbeing of professional esports players (e-pro-players), who often suffer from exhaustion. This study examines the factors contributing to exhaustion among e-pro-players.

### **Design/Methodology/Approach:**

Using conservation of resources theory, we developed a framework to explain the factors leading to e-pro-players' exhaustion and the conditions under which it occurs. We tested this framework with 126 responses in a dyadic survey from e-pro-players and their coaches in China. Additionally, we gathered qualitative insights from 50 interviews with esports stakeholders to provide more context for our quantitative findings.

### **Findings:**

Our study found that e-pro-players' intrinsic motivation to engage in training reduces their exhaustion, while their struggle to cope with uncertainty in esports environments (intolerance of uncertainty) increases it. The effect of intrinsic motivation is weaker for those who believe their talent for playing esports is fixed (entity belief) but stronger for those with high relational identification with their coaches. Additionally, the link between uncertainty intolerance and exhaustion is stronger in players with strong entity beliefs.

### **Originality:**

Our study sheds light on the factors contributing to e-pro-players' exhaustion within the partially regulated professional esports environment, a phenomenon that significantly influences their overall wellbeing. Through the identification and examination of these factors and the conditions under which they affect exhaustion, we deepen the understanding of the drivers of exhaustion for e-pro-players who operate in an industry lacking standardised regulations.

**Keywords:** Video games, Wellbeing, Surveys, Interviews, Esports

## 1. Introduction

Electronic sports (esports), rapidly growing forms of competition using video games, intersect with the sports, media, and entertainment industries (Reitman *et al.*, 2020). Professional esports players (e-pro-players) receive compensation for their gaming performance and advertising sponsorship, similar to professional athletes in traditional sports. In 2021, esports generated \$1.22 billion in global revenue, with forecasts predicting \$5.48 billion by 2029 and viewership reaching 640 million by 2025 (Gough, 2022). The inclusion of esports as a medal event in the 2022 Asian Games highlights its growing significance (Murray *et al.*, 2022). However, rapid commercialisation and a lack of universal governance present challenges. In the professional esports setting, e-pro-players sign contracts with professional teams or clubs (e.g., Team Liquid, Fnatic), similar to traditional sports teams like the New York Yankees or Manchester United. These teams provide support through managers, coaches, and staff. In return, e-pro-players train extensively and generate income through prizes, advertising, and sponsorships (Hamari and Sjöblom, 2017). Unlike traditional sports, esports teams control all organisational matters, raising concerns about protecting e-pro-players' rights and wellbeing (Hong *et al.*, 2023; Shulze *et al.*, 2023). One important factor affecting e-pro-players' wellbeing is exhaustion, which refers to the emotional and physical depletion from the intense demands of training and competition (Davis *et al.*, 2018; Raedeke and Smith, 2001). Unlike exhaustion in business management, which emphasises psychological aspects (Halbesleben and Bowler, 2007; Ito and Brotheridge, 2003), exhaustion in esports includes both psychological and physical aspects (Davis *et al.*, 2018; Hong *et al.*, 2023).

A review of the literature on the causes of e-pro-players' exhaustion reveals significant gaps in our understanding. First, existing research highlights the crucial role of e-pro-players' motivation in combating exhaustion (e.g., Ahn and Kim, 2024; Hong *et al.*,

2023; Poulus *et al.*, 2024). However, these studies often focus on burnout, a broader concept that includes exhaustion, devaluation, and reduced accomplishment (Eklund and DeFreese, 2020; Poulus *et al.*, 2024; Raedeke and Smith, 2001). This broader focus may overlook complex interactions between burnout elements, affecting our understanding of motivation's influence on exhaustion specifically. Second, researchers indicate that environmental uncertainty, often due to unclear governance structures, can affect e-pro-players' wellbeing (Hong, 2023; Meng-Lewis *et al.*, 2022; Reitman *et al.*, 2020). Few studies have explored how e-pro-players' ability (or inability) to cope with uncertainty in esports environments affects their exhaustion (e.g., Poulus *et al.*, 2024). Understanding this relationship is crucial for developing strategies to support e-pro-players and inform governance reforms. Third, previous research recognises that e-pro-players' psychological (e.g., Polman, 2023; Zsila *et al.*, 2023) and relational (Watson *et al.*, 2022) conditions can create boundary conditions that support or undermine their motivation and ability to cope with uncertainty and exhaustion. However, the moderating roles of these conditions have not been empirically examined. Understanding these influences is crucial for insights into how psychological and relational factors buffer against or exacerbate the negative impacts of uncertainty, guiding the development of effective support mechanisms for e-pro-players' wellbeing.

To address identified research gaps, we developed a framework based on Conservation of Resources (COR) theory and existing esports literature. Our study examined intrinsic motivation and uncertainty intolerance, reflecting e-pro-players' motivation and their ability to cope with esports' uncertain environment, and their effects on exhaustion. We investigated the roles of e-pro-players' entity belief (belief in fixed talent) and relational identification (with their coaches) as moderators. The framework underwent testing using 126 responses in a dyadic survey from e-pro-players and their coaches in China. Additionally, we gathered supplementary qualitative insights from 50 interviews with esports stakeholders.

These efforts aimed to uncover factors and contingencies influencing e-pro-player exhaustion. Our approach integrated quantitative and qualitative methods to provide a comprehensive understanding of the challenges faced by professionals in this dynamic industry.

## **2. Literature Background**

Several related research streams have emerged to address issues concerning e-pro-players' exhaustion. The first stream focuses on sports medicine and health sciences within esports. These studies examine the impacts of various participation-related variables, such as time spent playing, equipment used, and the gaming environment, on e-pro-players' physical and mental health, where exhaustion is part of their assessment (e.g., Monteiro Pereira *et al.*, 2022; Yin *et al.*, 2020). For example, Sanz-Matesanz *et al.* (2024) showed that virtual training reduces jump height and joint mobility while increasing perceived physical exertion by 76.9% and cognitive exertion by 166.67%.

The second stream deals with the wellbeing of e-pro-players, focusing on both physical and psychological factors. Researchers aim to identify and understand the elements contributing to e-pro-players' wellbeing. Physical factors include physiological arousal (e.g., increases in blood pressure) (Sousa *et al.*, 2020), injuries (e.g., neck pain) (DiFrancisco-Donoghue *et al.*, 2022), and others. Psychological factors include stress (Poulus *et al.*, 2020), experienced emotions (Kou and Gui, 2020) and others. Exhaustion is a critical issue impacting esports players' wellbeing (e.g., Shulze *et al.*, 2023). This research stream explores how stressors and demands specific to esports contribute to both physical and mental exhaustion, affecting overall wellbeing.

The third research stream, though less explored, is gaining academic attention. This stream investigates the direct causes of e-pro-players' exhaustion. Some studies focus on broader aspects and test several factors affecting e-pro-players' burnout, with exhaustion

being a crucial element. For example, Poulus *et al.* (2024) found that resilience factors were negatively associated with burnout symptoms, while avoidance coping was positively associated. Ahn and Kim (2024) demonstrated that esports athletes suffer from burnout throughout their careers due to their unique environment and interactions. Other studies have a narrower focus. Hong *et al.* (2023) examined the impact of e-pro-players' self-determined motivation on burnout, finding it was negatively associated with both exhaustion and a reduced sense of accomplishment. Our research extends this third stream by focusing specifically on the factors impacting e-pro-players' exhaustion. We aim to identify and examine the boundary conditions that may affect these impacts. These objectives provide a comprehensive picture of the causes of e-pro-players' exhaustion. In the next section, we will elaborate on our arguments and present our detailed analysis.

### **3. Theory and Hypotheses**

#### **3.1 The Effects of Intrinsic Motivation and Intolerance of Uncertainty on Exhaustion**

According to COR theory, individuals' actions reflect their motivation to obtain, maintain, and safeguard valuable "resources" (Hobfoll, 1989). These resources can be personal (e.g., skills) or social (e.g., co-workers) (Halbesleben *et al.*, 2014). The theory explains the origins of exhaustion by suggesting that individuals experience it when they lose existing resources, face the risk of losing resources, or unsuccessfully attempt to conserve or increase resources (Hobfoll, 1989; Ito and Brotheridge, 2003). The level of resource reserves influences vulnerability to exhaustion (Ito and Brotheridge, 2003). COR theory emphasises that resource reserves are dynamic; individuals can combat exhaustion by engaging in activities that add resources to their reserves. Conversely, activities that consume resources can deplete reserves, leading to increased exhaustion. In the context of e-pro-players, COR theory offers valuable insights into the factors contributing to their exhaustion. When e-pro-

players engage in activities that enhance their resources, their reserves increase, reducing exhaustion. Conversely, activities that deplete resources diminish reserves, increasing exhaustion. Figure 1 illustrates the proposed framework.

“Insert Figure 1 here”

Intrinsic motivation, defined as performing an activity for the satisfaction and pleasure it brings (Bakker, 2008), can be viewed as a crucial resource in combating e-pro-players’ exhaustion, based on COR theory. This theory recognises intrinsic motivation as a vital personal resource because it provides energy, motivates goal achievement, and supports stress resistance (Halbesleben *et al.*, 2014; Hobfoll *et al.*, 2000). High levels of intrinsic motivation likely add to individuals’ resource reserves when performing certain activities, enabling them to better cope with task demands and challenges, thus reducing exhaustion. When individuals are strongly intrinsically motivated, they approach tasks with enthusiasm, dedication, and a positive mindset, buffering against the draining effects of prolonged engagement.

Applying these insights to the Chinese esports context, we argue that e-pro-players with high intrinsic motivation are better equipped to withstand the immense pressure of an environment lacking formal regulations for healthy training (Meng-Lewis *et al.*, 2022). The rapid growth of China’s esports industry (Yue *et al.*, 2020) has led to intense competition and demanding training schedules (Zhao and Zhu, 2021). Studies show that intrinsically motivated e-pro-players have a genuine passion for the game (Hong *et al.*, 2023; Mechelin and Liu-Lastres, 2023), which helps them endure high-demand training and reduces their likelihood of experiencing exhaustion (Zhao and Zhu, 2021). Intrinsic motivation enables e-pro-players to dedicate substantial time to intensive training while maintaining a positive outlook, seeing challenges as growth opportunities rather than threats. According to COR theory, individuals with a strong reservoir of personal resources, like intrinsic motivation, can

invest these resources in their work without fear of depletion (Halbesleben and Bowler, 2007; Ito and Brotheridge, 2003). By maintaining their resource reserves through intrinsic motivation, e-pro-players in China can sustain intense training while mitigating the risk of exhaustion. Thus, intrinsic motivation is a crucial resource for e-pro-players in China, enabling them to thrive in the demanding esports environment while minimising exhaustion. Formally, we state:

***H1: Intrinsic motivation is negatively associated with e-pro-players' exhaustion.***

Intolerance of uncertainty refers to difficulty coping with ambiguous situations (Carleton *et al.*, 2007). This cognitive bias shapes reactions to uncertainty at cognitive, emotional, and behavioural levels. According to COR theory, uncertainty threatens valuable resources by introducing ambiguity and unpredictability, undermining individuals' sense of control and security (Kucuk, 2023). Individuals with high intolerance of uncertainty are likely to experience significant anxiety and stress when faced with uncertain situations. This heightened sensitivity to uncertainty leads to increased cognitive and emotional strain, making them feel overwhelmed by their inability to predict or control future events. This constant state of distress can drain their resources, leading to exhaustion (Zhao *et al.*, 2024a).

We apply these insights to this study and argue that Chinese e-pro-players' intolerance of uncertainty will positively affect their exhaustion. Esports in China are highly competitive, with the country having one of the largest esports markets globally (Statista, 2024). This intense competition leads to demanding training regimens and significant pressure on players. Training schedules are often unpredictable due to the evolving nature of the industry, lack of standardised training programs, and varying practices among coaches and support staff (Zhao and Zhu, 2021). Despite the growth of the esports industry in China, significant uncertainty remains around e-pro-player career prospects (Meng-Lewis *et al.*, 2022). This uncertainty stems from the industry's rapid evolution, lack of established career

paths, short career spans, constantly shifting competitive landscape, and inconsistent earnings dependent on tournament winnings, sponsorships, and streaming revenue (Lu, 2016). Studies in other countries have also found uncertainty regarding e-pro-players' career prospects, development, and earnings (Kim and Thomas, 2015; Ward and Harmon, 2019), with challenges in transitioning to other careers due to lack of transferable skills and stigma associated with gaming. This combination adds considerable uncertainty in esports. Chinese e-pro-players with high intolerance of uncertainty struggle with rapidly changing scenarios and unexpected outcomes, leading to constant strain and resource depletion. According to COR theory, when individuals face situations that cause them to worry about uncertainty and potential resource loss, they are more likely to experience exhaustion (Zhao *et al.*, 2024a). Thus, Chinese e-pro-players with high levels of intolerance of uncertainty may perceive uncertain situations as more threatening, leading to a greater potential for resource loss and, consequently, exhaustion. We formally state:

*H2: Intolerance of uncertainty is positively associated with e-pro-players' exhaustion.*

### **3.2 The Moderating Role of Entity Beliefs**

Entity beliefs, the view that intelligence is fixed, shape how individuals respond to experiences (Hong *et al.*, 1999; Molden and Dweck, 2006). According to COR theory, individuals with these beliefs see intelligence as an unchangeable and finite resource, perceiving any challenge or failure as a threat to their self-perceived intelligence (Hobfoll, 1989; Hobfoll *et al.*, 2000). They may adopt coping mechanisms, such as creating obstacles to their own success, to mitigate the stress associated with potential resource loss. This protects their self-esteem by providing excuses for possible failures. Consequently, individuals with entity beliefs are more likely to avoid situations that could expose their perceived limitations, prioritising self-esteem protection over directly facing challenges.



Building on these insights, we propose that high levels of entity beliefs will undermine the influence of Chinese e-pro-players' intrinsic motivation to combat exhaustion. Esports training programs in China are known for their intensity, unpredictability, and challenging nature (Yue *et al.*, 2020; Zhao *et al.*, 2024b). E-pro-players with strong entity beliefs may experience setbacks and failures during rigorous training, undermining their intrinsic motivation. Although they may be capable of improving their gaming skills through effort, these players are less likely to do so because they believe their intelligence is fixed and unchangeable (Polman, 2023). Research indicates that people with entity beliefs are more likely to generate negative emotions and fewer positive emotions (Tao *et al.*, 2021). These negative feelings and stressful experiences buffer the positive impact of intrinsic motivation on exhaustion. Additionally, individuals with entity beliefs avoid situations that might challenge their intelligence, fearing they will not overcome obstacles. They perceive their intelligence as finite and unchangeable to protect their resources, particularly their self-worth (Zsila *et al.*, 2023). According to COR theory, individuals with entity beliefs will act to protect their self-esteem and avoid situations that may expose their perceived limitations (Halbesleben *et al.*, 2014; Hobfoll, 1989). Literature notes that those who believe intelligence cannot be improved tend to attribute work outcomes or performance to their own incompetence or incapability (Miele *et al.*, 2011), reducing the positive effects of intrinsic motivation. Consequently, these players are less likely to fully engage in the training and development necessary to build resilience and cope with environmental demands. In contrast, individuals with incremental beliefs view intelligence as changeable and improvable through effort. The resources fostered by these malleable beliefs can protect those with intrinsic motivation against exhaustion. Thus,

***H3a:*** *Entity beliefs negatively moderate the association between intrinsic motivation and e-pro-players' exhaustion.*

Applying the logic of COR theory, we also anticipate that entity beliefs will enhance the positive relationship between intolerance of uncertainty and the exhaustion of Chinese e-pro-players. Despite the growth of esports in China, the professional environment remains highly uncertain (Meng-Lewis *et al.*, 2022; Zhao *et al.*, 2024b). Individuals with low tolerance for uncertainty are already predisposed to stress in this setting. Combined with entity beliefs, this stress is exacerbated because e-pro-players with entity beliefs see their gaming skills as fixed and view any failure as a reflection of their unchangeable intelligence. The stigma associated with failure in Chinese culture, which highly values success (Zhao and Zhu, 2021), further exacerbates the stress experienced by players with entity beliefs. This cultural pressure compounds the stress of facing uncertainties in the esports environment. According to COR theory, this heightened stress depletes individuals' resource reserves more rapidly (Halbesleben *et al.*, 2014; Hobfoll *et al.*, 2000), leading to increased exhaustion among Chinese e-pro-players. Thus, in the presence of strong entity beliefs, the negative impact of intolerance of uncertainty on exhaustion is amplified, making Chinese e-pro-players more susceptible to exhaustion. The combination of low tolerance for uncertainty and entity beliefs creates a potent mix that depletes resources and increases the likelihood of exhaustion in the face of the uncertainties and pressures inherent in the Chinese professional esports environment. Thus:

***H3b:** Entity beliefs positively moderate the association between intolerance of uncertainty and e-pro-players' exhaustion.*

### **3.3 The Moderating Role of Relational Identification**

Relational identification refers to defining oneself in terms of a role relationship (Walumbwa and Hartnell, 2011). According to COR theory, strong relational identification leads to resource gains as both parties invest resources like time, effort, and emotional energy into the relationship. This mutual investment enlarges the reservoir of resources available to

support the relationship (Kaltiainen *et al.*, 2024; Shang *et al.*, 2023). In this research, we focus on the relational identification between e-pro-players and their coaches. This relationship is crucial in esports, as coaches play a vital role in shaping the professional and personal development of e-pro-players. Coaches guide routines, training exercises, and other activities (Sabtan *et al.*, 2022). They design and implement training programs to improve players' skills, develop strategies for peak performance, and ensure that performance is maintained. Additionally, coaches serve as mentors, providing both technical and tactical advice while supporting players' personal growth throughout their careers. Coaches often counsel players on navigating professional esports challenges, maintaining a healthy work-life balance, and coping with stress (Watson *et al.*, 2022). From the e-pro-players' perspective, strong relationships with their coaches provide emotional support, mitigating the emotional drain from intense training and the inherent uncertainty in esports. As a result, e-pro-players with strong relationships with their coaches are more likely to cope effectively with professional demands, benefiting from enhanced resource reserves.

Applying these insights, we suggest that high levels of relational identification with their coaches will strengthen the negative effect of intrinsic motivation on Chinese e-pro-players' exhaustion. In China, e-pro-players are often assigned coaches who guide their training routines and tasks to develop their gaming skills (Yue *et al.*, 2020). A strong relationship between e-pro-players and their coaches can buffer against stress, enabling better handling of training pressure and challenges (Zhao *et al.*, 2024b). E-pro-players who identify strongly with their coaches tend to internalise their coaches' values and goals, enhancing their engagement and enjoyment in gaming. This alignment fosters engagement and enthusiasm, as players feel supported and understood by their coach (Meng-Lewis *et al.*, 2022). When e-pro-players have high relational identification with their coach, their intrinsic motivation more effectively reduces emotional exhaustion. These players are more motivated to engage in

role-expected activities like striving for success and job engagement. Conversely, low relational identification means intrinsic motivation has less impact on reducing exhaustion, as there is no clear role relationship or expectations from the coach. According to COR theory, relational support help protect and replenish resources (Kaltiainen *et al.*, 2024; Shang *et al.*, 2023). The resources gained through strong relational identification with coaches can sustain Chinese e-pro-players' engagement and enjoyment in gaming. This relational support structure allows them to better cope with training stress, enriching their resource reserves to combat exhaustion. Thus,

***H4a:** Relational identification positively moderates the association between intrinsic motivation and e-pro-players' exhaustion.*

We also anticipate that relational identification will weaken the positive effect of uncertainty intolerance on exhaustion. In China, esports coaches serve as mentors, providing gameplay-related and career guidance (Meng-Lewis *et al.*, 2022; Zhao *et al.*, 2024b). High relational identification between e-pro-players and their coaches leads to more frequent interactions, offering emotional support and reassurance crucial for managing fear of uncertainty (Sabtan *et al.*, 2022; Zhao and Zhu, 2021). E-pro-players with high relational identification are more likely to leverage the player-coach bond to bolster their confidence in their esports future. When relational identification is strong, players engage more in knowledge sharing and collaborative problem-solving (Meng-Lewis *et al.*, 2022). This increased collaboration helps players develop a clearer understanding of their career prospects and the steps needed to achieve their goals, reducing the uncertainty about their future in esports. According to COR theory, relational support and guidance help replenish resource reserves (Kaltiainen *et al.*, 2024; Shang *et al.*, 2023). With an expanded resource reserve, e-pro-players manage stress and perceived threats involving uncertainty more effectively. Supported by their coach, Chinese e-pro-players are less likely to perceive

uncertain situations as overwhelming. This emotional support helps them better cope with the stress associated with their unpredictable profession, ultimately reducing the risk of exhaustion. Formally, we state:

***H4b:** Relational identification negatively moderates the association between intolerance of uncertainty and e-pro-players' exhaustion.*

## **4. Quantitative Research Method**

### **4.1 Data Collection and Measurement**

In this study, we approached e-pro-players and coaches from 23 esports clubs in China's main cities, including Shanghai, Xian, Guangzhou, Nanjing, and Shenzhen. We selected China for several reasons. First, the esports industry is well-developed in China, with around 100,000 full-time e-pro-players employed by over 5,000 clubs and teams as of 2019 (MOHRSS, 2019). Market revenue is projected to reach \$497.6 million by 2024, increasing to \$604.4 million with 235.2 million users by 2028 (Statista, 2024). Second, in terms of legitimacy, the Chinese government recognised esports as an official sport in 2003 (Yue *et al.*, 2020) and promoted its presence by including it as an official medal event in the 2022 Asian Games (Murray *et al.*, 2022). Third, China has strong organisations, professional sport systems, teams, and leagues in esports, along with significant sponsorships. Over 500,000 individuals were employed full-time in the Chinese esports industry as of 2019 (MOHRSS, 2019), and 145,000 entered the industry that year (Yue *et al.*, 2020).

Given our empirical context, we use the Chinese government's definition for esports players: "personnel engaged in competitions, training, experience, and performance activities of various types of esports projects" (MOHRSS, 2020). This definition categorises esports players into three groups: professional, semi-professional, and amateur players (Hong and Connelly, 2022; Meng-Lewis *et al.*, 2022). E-pro-players compete professionally, undergoing rigorous training and participating in major competitions. Their primary occupation is

esports, and they are recognised as professional players due to the competitive and strategic nature of their participation. Semi-professional players engage in competitive gaming part-time, receiving some compensation but balancing it with other employment. Amateur players participate for leisure, lacking the skill and commitment of professional and semi-professional players. It is important to distinguish between different categories of esports players, as they may experience different physical and psychological impacts based on factors such as training intensity and career stability (Hong and Connelly, 2022), which may relate to their levels of exhaustion. Our focus is on e-pro-players in China, aiming to uncover factors contributing to their exhaustion and the conditions under which it occurs.

The study involved participants primarily engaged in Honor of Kings, a MOBA (Multiplayer Online Battle Arena) game and the world's most played mobile game, providing diverse contexts for examining pro-player experiences regarding their career paths and wellbeing. To minimise common method bias, we collected data from different sources. E-pro-players completed online self-report questionnaires on intrinsic motivation, intolerance of uncertainty, entity beliefs of intelligence, and relational identification. Coaches evaluated e-pro-players' exhaustion levels. After eliminating missing values, we had 126 sets of dyadic data. The diverse participant pool (96.8% male, 67.6% aged 18 to 23, 17.5% with bachelor's or higher degrees) offers a comprehensive overview of the Chinese esports community's demographics.

Intrinsic motivation measures adapted from Bakker (2008) assessed e-pro-players' perceived challenge or competence from performing tasks. Intolerance of uncertainty, measured using scales from Carleton *et al.* (2007), represents e-pro-players' inability to accept unpleasant responses due to lack of information. Entity beliefs, measured using adapted scales from Hong *et al.* (1999), assessed e-pro-players' belief that their intelligence is fixed. Relational identification measures, adapted from Walumbwa and Hartnell (2011),

evaluated e-pro-players' identification with their coach. Exhaustion, reflecting e-pro-players' emotional or physical resource depletion, was rated by coaches using scales from Raedeke and Smith (2001). All measures are seven-point Likert-type scales (1 = strongly disagree, 7 = strongly agree). Age, gender, education, wage, game-related bonuses, and athlete tenure were controlled, as they affect e-pro-players' exhaustion (Meng-Lewis *et al.*, 2022; Shulze *et al.*, 2023). Age and tenure were log-transformed to prevent skewness. Gender was a dummy variable (male = 1, female = 0). Education and wage were assessed using 4-point scales. Game-related bonuses, reflecting additional income from sponsorships, live streaming, and virtual gifts, were a dummy variable (yes = 1, no = 0). To ensure face validity, pilot interviews were conducted with esports professionals and academics. Measurement items were refined, and scales were confirmed as applicable to the Chinese esports environment. Independent back-translation ensured accurate translation.

#### **4.2 Validity and Reliability**

To assess the validity and reliability of the measurements, we followed Hair *et al.* (2010) and dropped items with a standardised loading estimate below 0.500. Table 1 presents an overview of the results. A confirmatory factor analysis (CFA) model showed an adequate fit (Chi-square [ $X^2$ ] = 653.538; Degree of Freedom [ $df$ ] = 436;  $X^2/df$  = 1.499; p-value < 0.000; Comparative Fit Index [CFI] = 0.930; Root Mean Square Error of Approximation [RMSEA] = 0.063).

“Insert Table 1 here”

To further validate our measurement model, we conducted a series of statistical analyses, the results of which are presented in Table 2. Firstly, we calculated the Average Variance Extracted (AVE) for each construct. All AVE values surpassed the critical threshold of 0.500 established by Hair *et al.* (2010), indicating strong convergent validity. Secondly, we

assessed the reliability of our measures by computing the Composite Reliability (CR) for each construct. The CR values all exceeded the benchmark of 0.700, as recommended by Hair *et al.* (2010), demonstrating robust internal consistency of the item measures. Lastly, we evaluated the discriminant validity of our measures. This involved comparing the square root of each construct's AVE to its correlations with all other constructs. In each case, the square root of the AVE exceeded the inter-construct correlations, providing evidence of sufficient discriminant validity.

“Insert Table 2 here”

## 5. Findings

To address potential endogeneity issues, we used a multi-stage regression. We regressed intrinsic motivation against age, wage, game-related bonuses, athlete tenure, and intolerance of uncertainty to obtain residuals unaffected by personal background and intolerance of uncertainty. These residuals were used as the new independent variable in a multivariate regression analysis to test the hypotheses. Table 3 presents the results. H1, positing a negative relationship between intrinsic motivation and exhaustion, was confirmed (Model 1:  $\beta = -0.425$ ,  $p < 0.010$ ). H2, positing a positive relationship between intolerance of uncertainty and exhaustion, was also confirmed (Model 1:  $\beta = 0.391$ ,  $p < 0.010$ ).

“Insert Table 3 here”

We posit that entity beliefs weaken the negative relationship between intrinsic motivation and exhaustion (H3a) and strengthen the positive relationship between intolerance of uncertainty and exhaustion (H3b). We found positive interaction effects between entity belief and intrinsic motivation (Model 2:  $\beta = 0.258$ ,  $p < 0.050$ ) and between entity belief and intolerance of uncertainty (Model 2:  $\beta = 0.195$ ,  $p < 0.050$ ) on exhaustion. Figures 2a and 2b illustrate that strong entity beliefs diminish the negative association between intrinsic



motivation and exhaustion and increase the positive relationship between intolerance of uncertainty and exhaustion. Thus, H3a and H3b were confirmed.

“Insert Figure 2 here”

We posit that relational identification strengthens the negative relationship between intrinsic motivation and exhaustion (H4a) and weakens the positive relationship between intolerance of uncertainty and exhaustion (H4b). We found a negative interaction effect between relational identification and intrinsic motivation on exhaustion (Model 2:  $\beta = -0.289$ ,  $p < 0.050$ ), but no significant interaction effect between relational identification and intolerance of uncertainty on exhaustion (Model 2:  $\beta = 0.107$ , n.s.). Figure 2c illustrates that high relational identification strengthens the negative relationship between intrinsic motivation and exhaustion. Thus, H4a was confirmed, and H4b was rejected.

## **6. Supplementary Qualitative Study**

### **6.1 Interviews and Data Analysis**

To gain insights into factors contributing to Chinese e-pro-players' exhaustion, we conducted follow-up interviews. Six e-pro-player and coach pairs from our survey study participated. Using the snowballing method, we recruited 13 more interviewees (club presidents, training directors, and managers). Through co-authors' networks and snowballing, we recruited 22 stakeholders from another popular Chinese esports title, QQ Speed, and three esports editors. These additional interviewees provided further insights and improved generalisability. To provide context for our quantitative findings, we conducted a comprehensive qualitative data collection process involving 50 interviews. To improve the clarity of our findings and facilitate subsequent discussion, we assigned a unique numerical identifier to each interviewee. Table 4 presents a comprehensive list of all interviewees, detailing their respective roles and identifiers.

“Insert Table 4 here”

The supplementary interviews began with an explanation of our research focus and hypotheses, including the rationale behind them. We then presented our findings to the interviewees. Afterward, we asked for their comments and feedback on our research and findings. To gain deeper insights, we requested examples that aligned with our findings. If they disagreed, we asked for a discussion and examples to support their position. Following established guidelines (Guest *et al.*, 2011), we conducted a thematic analysis of the interview transcripts using COR theory. We identified themes and constructed a framework explaining the impact of intrinsic motivation and intolerance of uncertainty on Chinese e-pro-players’ exhaustion, considering entity belief and relational identification. Figure 3 presents this framework.

"Insert Figure 3 here"

We included selected interview quotations to provide deeper insights and contextualise our quantitative results. Additional quotations in Table 5 offer a comprehensive understanding. This approach enhances the study’s validity through data triangulation and provides rich, contextual information (Creswell and Creswell, 2017). Analysing the qualitative transcripts, we identified key themes and constructed a framework (Figure 3) explaining how intrinsic motivation and intolerance of uncertainty influence Chinese e-pro-players’ exhaustion, considering the moderating roles of entity belief and relational identification.

“Insert Table 5 here”

## **6.2 Supplementary Qualitative Findings**

### **6.2.1 Intrinsic Motivation and Exhaustion**

In the Chinese esports environment, our interviewees reveal that the relationship between intrinsic motivation and exhaustion is significantly influenced by the training context. An e-pro-player (#28) suggested:

*“When it comes to training, whose drive to keep improving keeps you going. The goal is to prove to yourself that you are the most reliable player in the team. The sweat, the extra reps, they all pay off when you come through”.*

This statement underscores the necessity for Chinese e-pro-players to possess a strong desire to train diligently, viewing training as a means to enhance their gaming abilities. An intrinsic motivational perspective aligns with engaging in an activity for intrinsic satisfaction rather than external rewards (Bakker, 2008). In addressing the issue of exhaustion among e-pro-players, a training director (#16) offered a compelling insight into the rigorous demands of their training procedures:

*“Training schedules can be really tough. They [e-pro-players] are constantly pushing themselves, day after day, and have very little time to relax. Their bodies scream for rest, but the tight schedule just will not let them. It is a never-ending cycle of intense workouts and drills that leaves them physically and mentally drained. It is no wonder they feel so much pressure from everywhere”.*

The intensity and unrelenting nature of such training regimens can lead to exhaustion. Chinese e-pro-players struggle to maintain their wellbeing due to constant physical and psychological demands and insufficient rest (Zhao and Zhu, 2021). Our interviewees further reveal that intrinsic motivation helps Chinese e-pro-players combat exhaustion, motivating them to meet the rigorous demands of training and unpredictable games. A coach (#37) suggested:

*“In my daily training, I motivate my team with a variety of methods, letting them know they can continue to improve, encouraging them to desire success, and believing that they can break through tough training without getting worn out”.*

This statement illustrates the transformative power of intrinsic motivation, demonstrating how it ignites Chinese e-pro-players’ passion, drives them to pursue excellence with unwavering dedication, and helps them face any challenges during training (Zhao *et al.*,

2024b). This intrinsic drive provides the energy and focus needed to endure intense training sessions, thereby combating exhaustion. By prioritising their training and immersing themselves fully in their practice, Chinese e-pro-players maintain high levels of engagement and enthusiasm, helping them resist exhaustion.

### **6.2.2 Intolerance of Uncertainty and Exhaustion**

Intolerance of uncertainty can lead to exhaustion among Chinese e-pro-players, as revealed by our interviewees. They suggest that this exhaustion often stems from players' concerns about job prospects and the lack of clear regulations within the esports industry. An esports club manager (#5) stated:

*“Players [e-pro-players] are always concerned about whether they will be signed for a new contract or whether they will be replaced by someone else. It is difficult for them to concentrate on training because of this uncertainty. Moreover, players are often concerned about the rapid change within the esports market; everything in this industry is uncertain - we are all aware of this...”*

E-pro-players who lack clear career paths experience uncertainty about their future (Meng-Lewis *et al.*, 2022), causing anxiety about contract renewals, potential team changes, and income sustainability. This persistent uncertainty leads to mental strain and exhaustion. The rapidly evolving esports industry in China adds another layer of uncertainty, with frequent game updates, team composition changes, and varying performance expectations requiring constant adaptation (Zhao *et al.*, 2024b). This need for adaptation is mentally and emotionally draining, particularly when career prospects are unclear. This context is especially challenging for e-pro-players who are overly sensitive to uncertainty. An e-pro-player (#38) reported:

*“The career and job market in the esports industry is very uncertain, which is why I often think about my future as a professional player [e-pro-player] in China. As a result of this uncertainty, I am unable to train with peace of mind because I do not know what the future holds, or if I will be able to continue to work in this field. This anxiety is what makes many of us feel depressed”*

E-pro-players who struggle to cope with the lack of clarity experience heightened stress levels, making it more difficult to maintain motivation and focus (Zhao and Zhu, 2021). This chronic stress response can lead to persistent exhaustion and depleted resources.

The inability to cope with the uncertain esports environment can hinder e-pro-players' development of the resilience necessary to overcome losses and setbacks. An esports project manager (#47) suggested:

*“In addition to rapid development and changes, the job roles and requirements continue to change. The current regulatory direction of the industry is not well established yet, and there is no unified regulatory direction. Moreover, new games, rules adjustments, and fluctuations in market demand all can have a significant impact on a player’s career trajectory. Some of our players are quite young and fragile, and they can sometimes feel lost and frustrated”.*

For Chinese e-pro-players who lack resilience, each setback may seem insurmountable. With constant changes in the landscape, players who are incapable of adapting and recovering from setbacks can become exhausted (Zhao and Zhu, 2021), leading to a perpetual state of stress and demotivation. This lack of resilience prevents them from learning from failures and moving forward, resulting in a cycle of frustration and exhaustion.

Heightened sensitivity to unpredictability in esports can also increase mental strain.

An esports chief coach (#48) suggested:

*“If an e-pro-player feels uncertain about what is to come, it is difficult for them. They begin to think they cannot even play well anymore, and they begin to get all negative. Furthermore, they feel stuck in a situation and cannot do anything to improve it”.*

Continually worrying about unknown aspects of their careers leads to higher anxiety levels and difficulty maintaining focus for e-pro-players who are intolerant of uncertainty. The persistent anxiety drains their mental resources. Due to the constant state of unpredictability (Yue *et al.*, 2020), players are constantly on edge, anticipating potential career changes, and can be prone to heightened alertness and stress. This chronic stress response not only contributes to mental health issues but also physical health problems, leading to exhaustion.

### 6.2.3 Moderating Role of Entity Beliefs

The interviewees reflect on entity belief, suggesting that it means e-pro-players believe gameplay skills and talents cannot be significantly improved. An e-pro-player stated:

*“I always thought that I was talented, so I was selected [by the club]. However, after joining the club, I realised that many people were born with more talent, and this talent cannot be ignored [in esports]. Despite training every day and learning new tactics and skills every day, I feel that I cannot improve some of my skills and thinking much”.*

This fixed mindset implies abilities are inherent and unchangeable (Hong *et al.*, 1999; Molden and Dweck, 2006), leading to detrimental effects on motivation and training engagement. E-pro-players with strong entity beliefs reduce their motivation in training. They believe their skills and talents are static and cannot be improved through effort, so they see little value in training. An esports project manager (#41) reflected:

*“Our players [e-pro-players] may feel frustrated when they do not feel their skills have improved significantly, or it seems that they are always losing matches, and this will affect their motivation in training”.*

This perception diminishes their enjoyment and drive to engage in training (Mechelin and Liu-Lastres, 2023; Zhao *et al.*, 2024b). When players believe their efforts will not result in improvement, their intrinsic motivation to practice and persevere is diminished. Consequently, players lacking motivation are less likely to participate in training sessions. Furthermore, e-pro-players with entity beliefs avoid failure and challenges. An e-pro-player (#40) suggested:

*“I sometimes play conservatively. When training or competing, I avoid challenging operations because I am afraid of failing in public. My coach also talked about the impact this mentality will have on my training and self-confidence”.*

They see setbacks not as opportunities for growth but as reflections of their inherent abilities. This avoidance behaviour stems from their fear of exposing their perceived limitations (Polman, 2023; Zsila *et al.*, 2023). When confronted with challenges that could highlight

their weaknesses, these Chinese e-pro-players are inclined to withdraw, diminishing their motivation to train, and preventing them from improving their skills and resilience.

Interviewees suggest that those with entity beliefs are more likely to strengthen the relationship between intolerance of uncertainty and exhaustion due to several factors. Firstly, a fixed mindset makes it difficult for e-pro-players to adapt to rapid changes in the esports environment. An e-pro-player (#50) suggested:

*If you think your skill cannot be improved, it is hard to keep up with the fast-paced world of esports. When things change, if you do not believe you can grow, you will have difficulty coping. As a result, they will get tired and feel like the scene is moving on without you.*

With frequent updates, evolving strategies, and changing team dynamics, esports in China requires an ability to learn and adapt (Lu, 2016; Yue *et al.*, 2020). E-pro-players who believe their skills are static may find it challenging to adjust, resulting in increased stress and inadequacy. The inability to adapt exacerbates their uncertainty and contributes to exhaustion. Secondly, e-pro-players who believe their talent is fixed suffer from a heightened fear of uncertainty. An esports coach highlighted:

*Players [e-pro-players] who believe their talent is fixed are scared of the uncertainty. They fear new updates and rising competitors, which makes them anxious and difficult to adjust to. This mindset makes it hard for them to keep up with esports' constant changes because they are constantly protecting their egos instead of embracing growth. Over time, they will get exhausted.*

The constant anticipation of failure or exposure results in significant anxiety and mental strain (Zsila *et al.*, 2023), reducing their cognitive and emotional resources, making it harder to cope with their profession's demands and leading to more exhaustion. Thirdly, e-pro-players with a fixed mindset are resistant to change. An esports newspaper editor suggested:

*"Professionals [e-pro-players] in esports resist change when they believe they have predetermined abilities. But in a world that demands constant adaptation, that mindset can really hurt them. Without adaptation, they will fall behind the competition, which will leave them stressed over time".*

Uncertainty is further compounded by a lack of willingness to embrace new strategies and training methods. Consequently, they miss opportunities for growth and resilience. By sticking to familiar routines and avoiding challenges, Chinese e-pro-players limit their development and reinforce their belief that they are unchangeable (Zhao *et al.*, 2024b). It is difficult for them to maintain momentum when they see their peers advancing, leading to frustration.

#### 6.2.4 Moderating Role of Relationship Identification

Interviewees reflect on relationship identification, emphasising the importance of Chinese esports players maintaining a close bond with their coaches. An esports club manager (#29) suggests:

*“In my opinion, players [e-pro-players] share a sense of belonging and connection with their coaches, which has profound effects on both their performances and personal lives. This bond serves as a powerful antidote to any inadequacies that they might possess at the same time. As a result of this positive relationship, they often exhibit remarkable alignment with their coaches’ training philosophy, resulting in stellar performances in competitions and sometimes assuming leadership roles”.*

In relation to our study’s quantitative results, interviewees suggest that strong relational identification with their coaches provides three primary reasons for overcoming exhaustion. Firstly, e-pro-players who feel supported by their coaches are more motivated to train. A chief coach suggests:

*“Because of this trusting relationship, they [e-pro-players] are willing to seek help whenever they encounter difficulties, and they are willing to put in more effort to train because they trust that I genuinely care about them”.*

The emotional and psychological support from coaching makes players feel secure and encouraged (Sabtan *et al.*, 2022; Watson *et al.*, 2022). In this supportive environment, Chinese e-pro-players feel valued and understood, leading to increased motivation to engage in rigorous training. Secondly, e-pro-players engage more fully in training as they develop



trust and communication with their coaches. A former e-pro-player and now esports magazine editor (#13) recalls:

*“Having a good relationship with our coach is very important... You will not be able to fully commit to training if you do not have a coach who communicates well and is trustworthy. Despite his best efforts, you will be sceptical of his training methods and not motivated to try new strategies. This will cause you to miss many opportunities to improve”.*

A strong relational bond enhances open communication, allowing players to express concerns and receive constructive feedback. Chinese e-pro-players benefit from this trust, knowing their coaches are committed to their success and wellbeing, enabling them to approach training with greater confidence and commitment (Zhao and Zhu, 2021). By engaging deeper in training, they build resilience and reduce exhaustion. Thirdly, coaches with strong relationships can provide personalised support and encouragement. A club vice president (#25) suggests:

*“E-pro-players need coaches to get to know them so they can provide personalised motivation and support. They can tailor advice based on their strengths, weaknesses, and needs. Individualised training not only improves training effectiveness and engagement, but it also keeps them motivated, even in tough times, and reduces exhaustion”.*

By understanding e-pro-players’ unique strengths and weaknesses, coaches can tailor guidance and training methods to meet individual needs (Sabtan *et al.*, 2022). This personalised approach makes e-pro-players feel more competent and capable, further enhancing their intrinsic motivation. Additionally, coaches can identify signs of fatigue and intervene with appropriate support, reducing exhaustion before it becomes overwhelming.

Our research did not reveal a moderating effect of relational identification on the link between intolerance of uncertainty and exhaustion. This finding may stem from the unregulated nature of esports, which complicates coaches’ ability to provide career certainty (Meng-Lewis *et al.*, 2022; Shulze *et al.*, 2023). An esports club manager (#49) offered illuminating insights on this matter:

*“There are some esports coaches who are limited by their own experiences. Since they followed a narrow career path, they may not have the well-rounded perspective to guide the next generation of gamers. These coaches frequently struggle to provide players with a complete overview of future possibilities and professional pathways that may differ from their own. Sometimes, their narrowed view even leads them to offer improper or incorrect advice. To truly elevate future esports stars, the coaching pool needs more diversity of experience and wisdom to match the wide range of player skills and goals emerging today”.*

This statement provides valuable context, suggesting that the limited experience of some coaches may hinder their ability to effectively mitigate uncertainty for players. The diversity of career paths in esports, coupled with the industry’s rapid evolution, presents unique challenges for coach-player relationships (Sabtan *et al.*, 2022). These factors may explain why relational identification does not significantly moderate the impact of uncertainty intolerance on exhaustion. Our supplementary qualitative findings thus offer deeper insights into the complex dynamics within the esports ecosystem.

## **7. Implications and Concluding Remarks**

### **7.1 Discussion**

This study found that intrinsic motivation negatively associates with exhaustion (confirming H1), whilst intolerance of uncertainty positively relates to exhaustion (confirming H2) in the Chinese esports environment. Intrinsic motivation helps e-pro-players maintain enthusiasm and resist exhaustion, whereas intolerance of uncertainty increases stress and emotional depletion, contributing to exhaustion. Our qualitative findings provide context, showing that intense training schedules and the rapidly evolving esports industry in China contribute to e-pro-players’ exhaustion. However, intrinsic motivation can counteract this exhaustion by motivating players to pursue excellence despite challenges.

Furthermore, this study highlights the moderating role of entity beliefs. Entity beliefs weaken the protective effect of intrinsic motivation and amplify the detrimental effect of intolerance of uncertainty (confirming H3a and H3b). Players with a fixed mindset benefit

less from intrinsic motivation and are more susceptible to the harmful effects of uncertainty. Qualitative insights reveal that entity beliefs reduce motivation, lead to avoidance of challenges, and resistance to change, exacerbating the impact of uncertainty on exhaustion. We also found that relational identification strengthens the negative relationship between intrinsic motivation and exhaustion, underscoring the importance of strong player-coach relationships (confirming H4a). Players supported by their coaches are more motivated, engage more in training, and receive personalised support, reducing exhaustion. However, we did not find that relational identification moderates the link between intolerance of uncertainty and exhaustion (rejecting H4b). Our qualitative findings further explain that the limited experience of some coaches may hinder their ability to effectively mitigate uncertainty for players. The diversity of career paths in esports, coupled with the industry's rapid evolution, presents unique challenges for coach-player relationships.

## **7.2 Theoretical Contribution**

We make several important theoretical contributions in this study. To begin with, we provide new insights into the crucial roles of intrinsic motivation and intolerance of uncertainty in influencing Chinese e-pro-player exhaustion. The impact of these factors on e-pro-players has not been directly examined in previous studies. In terms of exhaustion, previous research has predominantly focused on athlete burnout (Eklund and DeFreese, 2020; Poulus *et al.*, 2024; Raedeke and Smith, 2001), a broader construct that may overlook the complex interactions between its elements such as exhaustion and other elements (Eklund and DeFreese, 2020; Raedeke and Smith, 2001). This broader focus can obscure our understanding of the specific influences on e-pro-players' exhaustion.

Regarding intrinsic motivation, while Hong *et al.* (2023) examined the impact of self-determined motivation on exhaustion, they still focus on the broader scope of burnout and the

Korean esports environment. Other studies on the Chinese esports environment provide only implicit suggestions about this relationship and have not explicitly examined it (Meng-Lewis *et al.*, 2022; Zhao *et al.*, 2024b). Studies have shown that environmental uncertainty can negatively impact the wellbeing of e-pro-players (Hong, 2023; Meng-Lewis *et al.*, 2022; Reitman *et al.*, 2020). However, few studies have investigated how players' ability (or inability) to cope with uncertainty in esports environments plays a determinant role in these effects (e.g., Poulus *et al.*, 2024). No studies have focused specifically on the Chinese esports environment. Our findings shed new light on the relationships among intrinsic motivation, intolerance of uncertainty, and exhaustion.

Furthermore, we shed new light on the significant role of entity beliefs and relational identification in moderating the impact of Chinese e-pro-players' intrinsic motivation and intolerance of uncertainty. These factors have not been explicitly examined in previous studies. Nonetheless, prior research has acknowledged the potential influence of e-pro-players' fixed mindsets about their talents and skills in game playing on their training in sports (Polman, 2023; Zsila *et al.*, 2023) and their ability to deal with uncertain sports environments (Zhao and Zhu, 2021). Similarly, prior studies have recognised the significant role of the relationship between e-pro-players and coaches, which may affect e-pro-players' training and their handling of uncertain sports environments (Sabtan *et al.*, 2022; Watson *et al.*, 2022). This implicitly suggests that e-pro-players' relational identification with their coaches can be an important boundary condition.

Our findings reveal that entity beliefs reduce the positive influence of intrinsic motivation on reducing exhaustion and increase the negative effect of intolerance of uncertainty on increasing exhaustion. On the other hand, relational identification with coaches enhances the negative effect of intrinsic motivation on reducing exhaustion, in line with our predictions. However, we did not find that relational identification moderates the

link between intolerance of uncertainty and exhaustion. This may be due to the dynamic nature of the Chinese esports environment, which makes it difficult for coaches to provide a sense of certainty that could support e-pro-players in managing uncertainty. These findings extend the literature on factors contributing to e-pro-players' exhaustion (Ahn and Kim, 2024; Hong and Connelly, 2022; Poulus *et al.*, 2024). By highlighting these moderating factors, our study provides a more comprehensive understanding of the dynamics influencing e-pro-players' wellbeing and performance, offering practical implications for supporting players in the competitive and uncertain esports environment.

Together, we advance the applicability of COR theory (Halbesleben *et al.*, 2014; Hobfoll, 1989; Hobfoll *et al.*, 2000) to explain the impacts of these factors on Chinese e-pro-players' exhaustion. Intrinsic motivation adds to their resource reserves, enabling them to cope with task demands and challenges, combating exhaustion. Conversely, intolerance to uncertainty depletes resources in the uncertain Chinese esports environment, leading to exhaustion. Entity beliefs restrict resource generation, as players with a fixed mindset are less likely to engage in skill-enhancing activities. Relational identification with coaches provides additional resources through support and guidance. Our findings confirm these results. In doing so, this study extends COR theory to esports, demonstrating its utility in explaining resource management and exhaustion dynamics within the esports industry.

### **7.3 Managerial Implications**

Our research provides valuable insights for managers and organisations in the Chinese esports industry to effectively support and manage e-pro-player exhaustion. First, esports clubs and coaches should focus on fostering intrinsic motivation among e-pro-players. Our findings indicate that intrinsic motivation plays a critical role in combating exhaustion.

Managers can create supportive environments by using coaching techniques that build confidence, set realistic goals, and emphasise the intrinsic enjoyment and passion for esports. Nurturing e-pro-players' genuine interest and love for the sport can help them find fulfilment and meaning in their work, serving as a buffer against exhaustion.

Second, organisations should provide resources to help e-pro-players manage their intolerance of uncertainty. Our study highlights the positive relationship between intolerance of uncertainty and exhaustion. Managers can address this by offering behavioural therapy sessions with a team psychologist. These sessions provide coping strategies for dealing with uncertainties in the esports industry, such as game updates, team changes, and performance expectations. By challenging negative thought patterns and focusing on self-improvement, e-pro-players can reduce anxiety and mitigate uncertainty.

Third, esports clubs should invest in training programs that promote a growth mindset among e-pro-players. Our findings underscore the detrimental effects of entity beliefs on the relationship between intrinsic motivation, intolerance of uncertainty, and exhaustion. Managers can counteract these effects by implementing interventions that shift fixed beliefs about innate talent towards a growth mindset. Reframing setbacks and losses as opportunities for improvement and learning fosters resilience and maintains motivation in the face of challenges. Organisations need to cultivate a culture that values effort, perseverance, and adaptability.

Fourth, coaches should prioritise building strong relational bonds with e-pro-players. Our study highlights the importance of relational identification in strengthening the negative relationship between intrinsic motivation and exhaustion. Managers can facilitate strong player-coach relationships by providing identity leadership training for coaches. This training should focus on creating a shared sense of identity and belonging through unifying language, shared objectives, and team-building activities. When e-pro-players feel psychologically

supported and connected to their coaches, their intrinsic motivation is reinforced, helping them cope with professional demands.

In addition, Chinese esports organisations should embed these research-backed strategies throughout their clubs, coaching staff, and psychological support services to address e-pro-player exhaustion. They can develop comprehensive educational and psychological programs geared towards managing stress, regulating emotions, enhancing resilience, balancing work and life, and providing peer support. As the Chinese esports industry continues to grow and evolve, organisations, managers, and coaches must commit to maintaining e-pro-player wellbeing.

Apart from e-pro-players, coaches, and team management, our findings can also offer managerial implications for the wider esports ecosystem. More specifically, regulators can play a crucial role by establishing industry standards for player welfare, implementing licensing systems for clubs and coaches, and promoting education and awareness about player wellbeing. Game developers should carefully consider the impact of updates on player stress levels, while esports associations can develop and promote industry-wide best practices for player management. Educational institutions have the opportunity to collaborate with esports organisations in creating specialised curricula that prepare aspiring e-pro-players for the unique challenges of the industry. The media and fans also bear responsibility in fostering a culture of respect towards players' mental health. Healthcare providers can contribute by developing specialised mental health programmes tailored to the specific needs of e-pro-players. As the Chinese esports industry continues to evolve, it is imperative that all stakeholders commit to maintaining e-pro-player wellbeing. By implementing these research-backed strategies, the industry can effectively address exhaustion and contribute to the long-term sustainability and success of the esports sector in China.

#### **7.4 Limitations and Recommendations for Future Research**

We recognise several limitations in the present investigation, which lead to future research opportunities. First, our research focuses solely on existing e-pro-players employed by esports teams/clubs. Future studies should consider expanding the sample to include additional esports professionals with varied employment positions, such as club and event management, data analytics, psychologists, and esports educators. Second, the sample size of this research was restricted due to the nature of matching coaches' ratings with e-pro-players' self-rated questionnaires. Future studies should aim to increase the sample number and consider using large-scale panel data, if available, to verify our findings. Third, the data in our study were mainly collected amongst professionals involved in the esports title of Honor of Kings. While this selection provides diverse contexts for examining e-pro-player experiences regarding their career paths and wellbeing, it also limits the generalisability of our results. Future researchers may want to explore different esports titles to improve generalisability and gain a broader understanding of the factors influencing e-pro-players' wellbeing across various gaming environments. Fourth, our supplementary interview data only contain male respondents, which is not surprising given the male dominance in professional esports. However, we recognise this as a potential limitation, as the literature documents that female responses to esports environmental conditions can differ significantly from those of males (e.g., Yusoff and Basri, 2021). Future research should aim to involve more female participants in qualitative studies to provide a more comprehensive understanding and improve the generalisability of the findings. Finally, as our study focused solely on the Chinese esports industry, our findings may have limited generalisability. Future research should consider conducting comparative geographical studies across multiple countries with thriving esports industries, such as South Korea, to improve the generalisability of the findings.



## **7.5 Conclusion**

Our research offers valuable insights for managers and organisations in the Chinese esports industry. We highlight the importance of intrinsic motivation in combating exhaustion and the detrimental effects of intolerance of uncertainty on e-pro-players' exhaustion. Furthermore, we emphasise the importance of avoiding a fixed mindset and cultivating strong relationships between players and coaches, emphasising how entity beliefs and relational identification can moderate these effects. In the rapidly growing and legitimising esports industry in China and globally, it becomes increasingly important for researchers to examine the factors that influence e-pro-players' wellbeing and success. Developing evidence-based practices that support e-pro-players throughout the world can be achieved by better understanding the complex interaction between psychological, social, and organisational factors in the esports industry.

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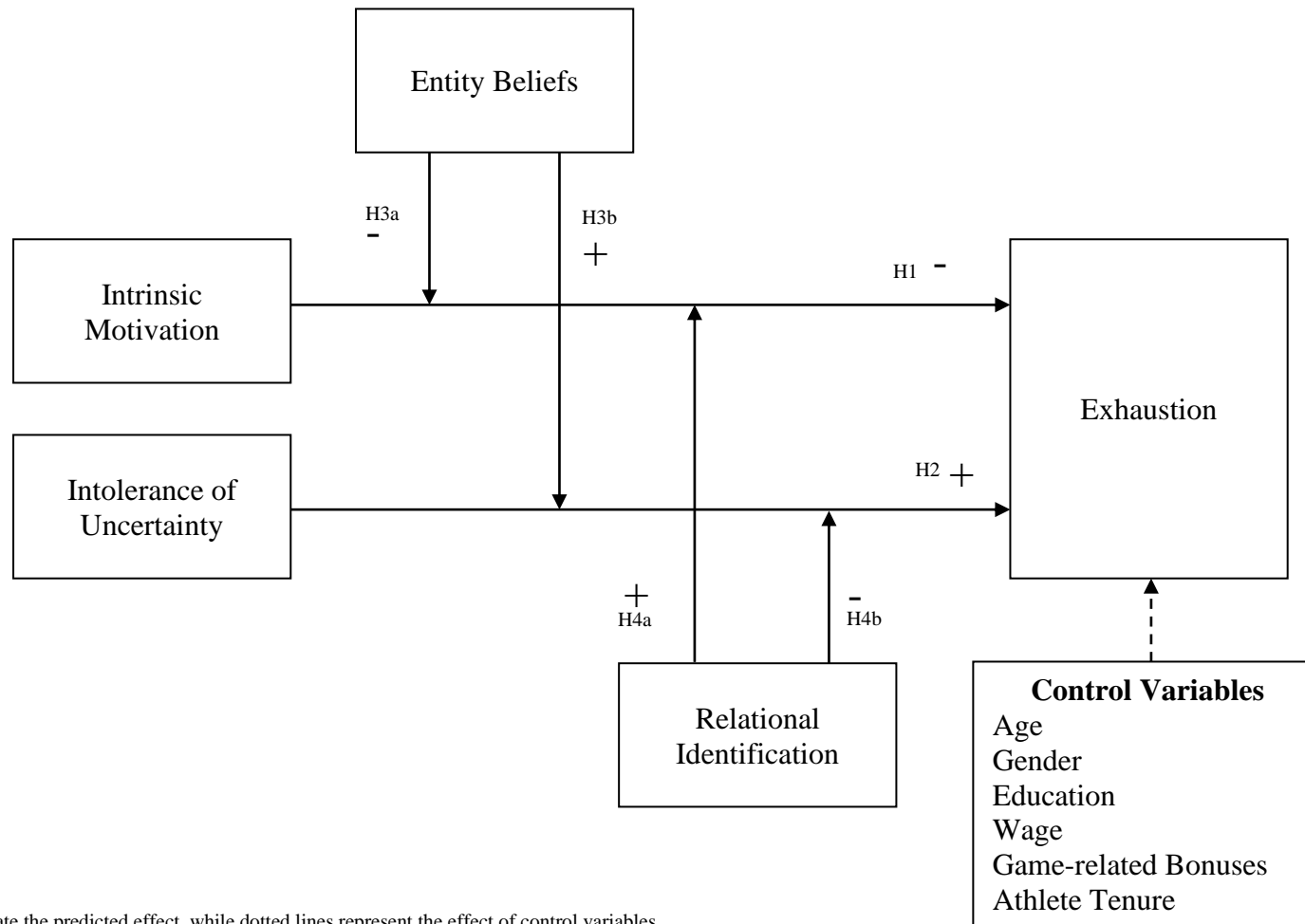
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**Figure 1: Conceptual Framework**



Note:  
 The solid arrow lines indicate the predicted effect, while dotted lines represent the effect of control variables.  
 H1, H2, H3a, H3b, H4a, and H4b indicate the hypotheses, and the “+” and “-” signs suggest the positive and negative aspects of our prediction.

**Table 1: Measurements**

Measurement	Initial Loading	Final Loading (after deletion of low loading items)
<b>Entity Beliefs</b>		
I have a certain amount of intelligence, and I really cannot do much to change it.	0.870	0.871
My intelligence is something about me that I cannot change very much.	0.862	0.862
I can learn new things, but I cannot really change my basic intelligence.	0.851	0.850
<b>Relational Identification</b>		
When someone criticises my coach, it feels like an insult to me.	0.720	0.720
I am interested in what others think about my coach.	0.560	0.560
When I talk about my coach, I usually say 'we' rather than 'him or her'.	0.847	0.847
I share the success of my coach.	0.681	0.681
I have a sense of partnership with my coach.	0.561	0.560
I am proud to tell others I work with this coach.	0.775	0.774
I praise my coach when speaking with friends.	0.761	0.760
I have a mutually beneficial relationship with my coach.	0.592	0.592
I respect the views and suggestions of my coach.	0.754	0.753
The values of my coach are consistent with my own.	0.759	0.760
<b>Intrinsic Motivation</b>		
I would still do this work*, even if I received less pay	0.712	0.712
I also want to work in my free time	0.808	0.808
I work because I enjoy it	0.906	0.906
When I am working on something, I am doing it for myself	0.545	0.545
I get my motivation from the work itself, and not from the reward for it	0.617	0.618
<b>Intolerance of Uncertainty</b>		
Unforeseen events upset me greatly.	0.634	0.613
It frustrates me not having all the information I need.	0.588	0.536
One should always look ahead so as to avoid surprises.	0.414	---
A small, unforeseen event can spoil everything, even with the best of my planning.	0.696	0.671
I always want to know what the future has in store for me.	0.412	---
I cannot stand being taken by surprise.	0.719	0.693
I should be able to organise everything in advance.	0.307	---
Uncertainty keeps me from living a full life.	0.808	0.801
When it is time to act, uncertainty paralyses me.	0.811	0.833
When I am uncertain, I cannot function very well.	0.828	0.856
The smallest doubt can stop me from acting.	0.835	0.850
I must get away from all uncertain situations.	0.691	0.691
<b>Exhaustion</b>		
This player feels so tired from their training that they have trouble finding energy to do other things.	0.877	0.877
This player feels overly tired from their esports participation.	0.938	0.938
This player feels "wiped out" from esports.	0.942	0.942
This player feels physically worn out from esports.	0.962	0.962
This player is exhausted by the mental and physical demands of esports.	0.886	0.886

Note:

--- Items deleted due to low factor loading

\* "Work" used in this survey refers to "participate in multiplayer video game competition"

Survey items regarding "entity belief", "relational identification", "intrinsic motivation", and "intolerance of uncertainty" were completed by individual e-pro-players, while survey items about "exhaustion" were completed by each player's coach.



**Table 2: Descriptive Statistics**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1. Entity Beliefs</b>	<b>0.861</b>				
<b>2. Relational Identification</b>	0.426*	<b>0.716</b>			
<b>3. Intrinsic Motivation</b>	0.199*	0.629*	<b>0.748</b>		
<b>4. Intolerance of Uncertainty</b>	0.520*	0.318*	0.137	<b>0.743</b>	
<b>5. Exhaustion</b>	0.166	-0.072	-0.215*	0.314*	<b>0.922</b>
<b>Mean</b>	4.923	5.552	5.897	4.556	3.151
<b>Standard Deviation</b>	1.595	1.084	1.074	1.350	1.819
<b>Composite Reliability</b>	0.896	0.911	0.861	0.916	0.966
<b>Average Variance Extracted</b>	0.741	0.513	0.559	0.552	0.849

Notes:

N = 126; \*p < 0.05

Average Variance Extracted (AVE) square roots are shown in bold on the correlation matrix diagonal.

All measures are seven-point Likert-type scales (1 = strongly disagree, 7 = strongly agree).

**Table 3: Results**

<b>Control</b>	<b>Model 1</b>		<b>Model 2</b>	
	<i>Coef.</i>	<i>t-value</i>	<i>Coef.</i>	<i>t-value</i>
Age	-3.819	-1.284	-4.489	-1.490
Gender	-0.197	-0.222	-0.344	-0.387
Education	-0.163	-0.742	-0.144	-0.645
Wage	0.113	0.455	0.146	0.574
Game-related Bonuses	0.783	1.298	0.738	1.218
Athlete Tenure	0.487	1.272	0.395	0.997
<b>Predictors</b>				
Intrinsic Motivation [IM]	-0.425**	-2.974	-0.207	-0.308
Intolerance of Uncertainty [IU]	0.391**	3.430	-1.476*	-2.070
Entity Beliefs [EB]			-0.765*	-2.119
Relational Identification [RI]			-0.507	-0.993
<b>Interactions</b>				
IM x EB			0.258*	2.331
IU x EB			0.195*	2.293
IM x RI			-0.289*	-2.114
IU x RI			0.107	0.918
Constant	6.022	1.544	14.887*	2.881
<b>Model Summary</b>				
F-Value	3.640		3.012	
P-Value	0.001		0.001	
R-Square	0.200		0.275	

Note:

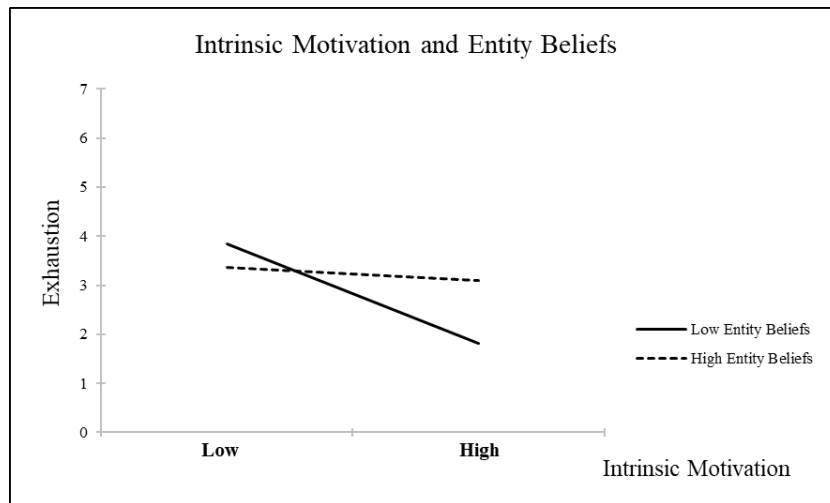
\*\* p &lt; 0.010; \* p &lt; 0.050

Dependent Variable = Exhaustion.

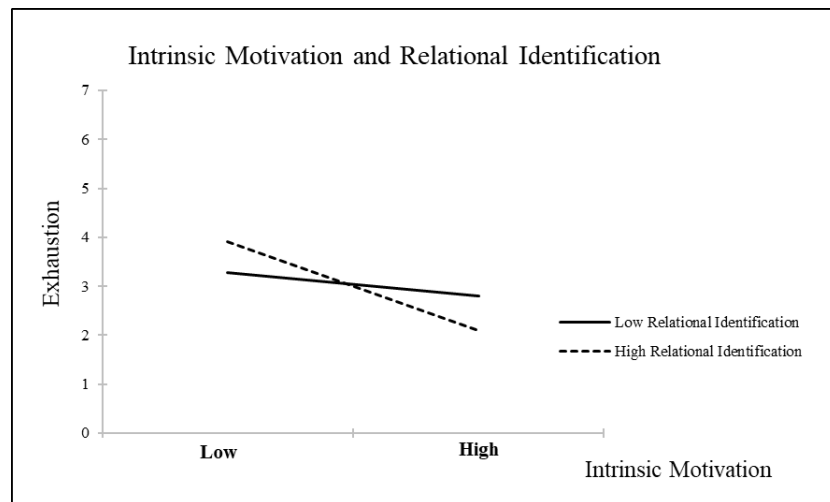
Coef. = Regression coefficient.

**Figure 2. Graphical Representation**

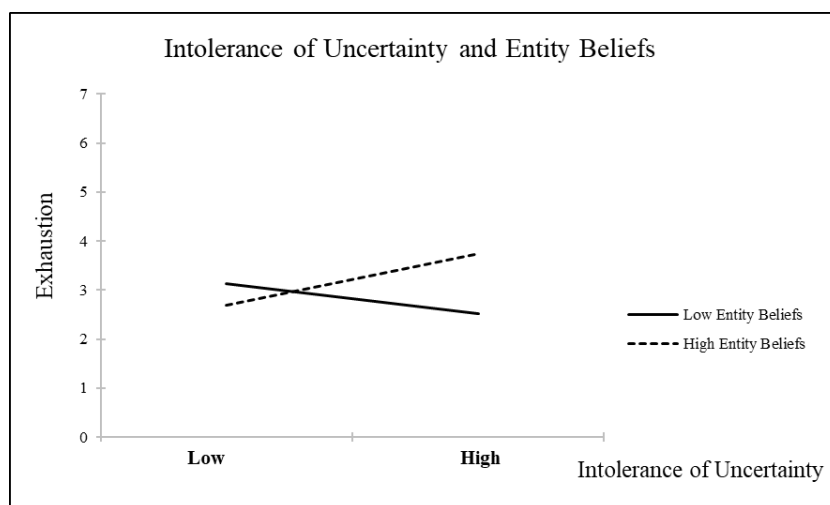
a)



b)



c)



Note:  
Independent and moderators for high/low:  $\pm 1$  standard deviation from mean.

**Table 4: Supplementary Interview Respondents**

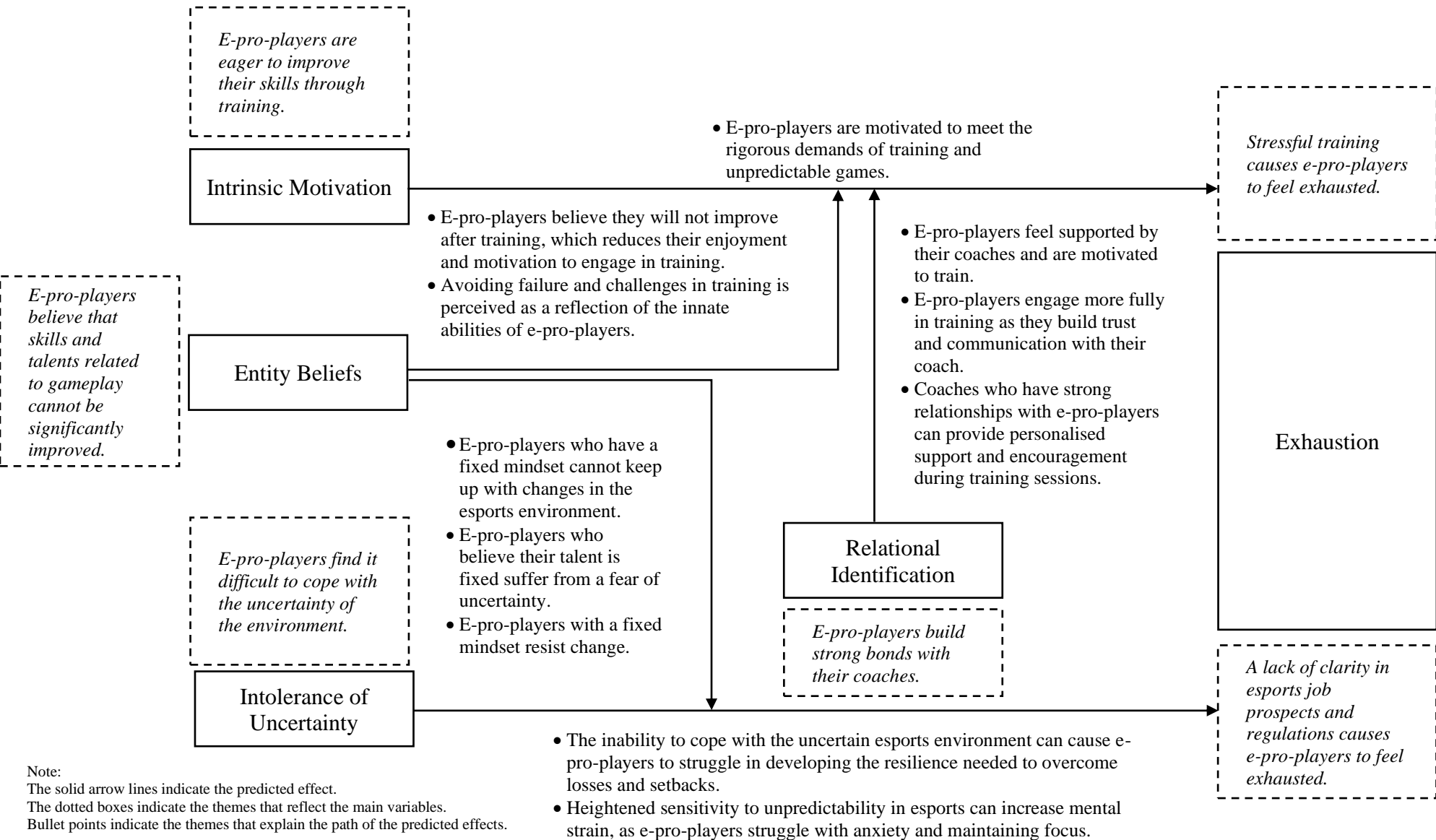
#	Position	Age	Gender	Athlete Tenure	Education	Esports Title
1	Esports club vice president	20	Male	4	High school	QQ Speed
2	E-pro-player	19	Male	3	High school	QQ Speed
3	E-pro-player	21	Male	5	Undergraduate	QQ Speed
4	Former pro-player now esports club project assistant	30	Male	10	High school	QQ Speed
5	Esports club manager	29	Male	11	Bachelor	QQ Speed
6	Former pro-player and Esports magazine editor	34	Male	13	Bachelor	---
7	Esports newspaper editor	30	Male	10	Bachelor	---
8	E-pro-player	25	Male	5	Undergraduate	QQ Speed
9	E-pro-player	24	Male	5	High school	QQ Speed
10	Esports coach	25	Male	6	High school	QQ Speed
11	E-pro-player	24	Male	4	Undergraduate	QQ Speed
12	Esports club manager	30	Male	12	Undergraduate	QQ Speed
13	Former pro-player and Esports magazine editor	32	Male	10	Undergraduate	----
14	Chief coach	34	Male	10	Undergraduate	QQ Speed
15	Esports club president	32	Male	10	Undergraduate	QQ Speed
16	Training director	22	Male	5	High school	QQ Speed
17	Esports coach	21	Male	4	Undergraduate	QQ Speed
18	Esports club vice president	35	Male	15	Undergraduate	QQ Speed
19	E-pro-player	21	Male	4	Undergraduate	QQ Speed
20	Esports coach	24	Male	6	High school	QQ Speed
21	Training director	26	Male	7	Undergraduate	QQ Speed
22	Esports club manager	31	Male	10	High school	QQ Speed
23	Chief coach	30	Male	4	Undergraduate	QQ Speed
24	Esports newspaper editor	32	Male	3	Undergraduate	QQ Speed
25	Esports club vice president	34	Male	4	Undergraduate	QQ Speed
26	Training Director	32	Male	4	High school	Honor of Kings
27	Esports coach	22	Male	2	Undergraduate	Honor of Kings
28	E-pro-player	21	Male	3	Undergraduate	Honor of Kings
29	Esports club manager	35	Male	5	Undergraduate	Honor of Kings
30	E-pro-player	24	Male	5	Undergraduate	Honor of Kings
31	E-pro-player	24	Male	4	Undergraduate	Honor of Kings
32	Esports club manager	26	Male	4	Undergraduate	Honor of Kings
33	Training director	30	Male	10	High school	Honor of Kings
34	Esports coach	32	Male	10	Undergraduate	Honor of Kings
35	Esports coach	34	Male	13	Undergraduate	Honor of Kings
36	Training director	32	Male	14	Undergraduate	Honor of Kings
37	Esports coach	22	Male	4	High school	Honor of Kings
38	E-pro-player	21	Male	4	Undergraduate	Honor of Kings
39	Esports club manager	28	Male	10	High school	Honor of Kings
40	E-pro-player	21	Male	3	Undergraduate	Honor of Kings
41	Esports project manager	30	Male	10	Undergraduate	Honor of Kings
42	Esports club vice manager	32	Male	15	High school	Honor of Kings
43	Training director	34	Male	8	High school	Honor of Kings
44	Esports coach	32	Male	7	Undergraduate	Honor of Kings
45	Esports club manager	30	Male	10	Undergraduate	Honor of Kings
46	Esports club manager	32	Male	10	Undergraduate	Honor of Kings
47	Project manager	34	Male	12	Undergraduate	Honor of Kings
48	Esports chief coach	30	Male	10	Undergraduate	Honor of Kings
49	Esports club manager	31	Male	10	Undergraduate	Honor of Kings
50	E-pro-player	24	Male	5	Undergraduate	Honor of Kings

Note:

# = Assigned numerical identifier to each interviewee.

QQ Speed is a multiplayer online kart racing game requiring quick reflexes, while Honor of Kings is a team-based battle arena game demanding strategic coordination. These distinct genres shape different skill requirements and competitive structures in e-sports.

**Figure 3: Supplementary Qualitative Findings**



**Table 5: Themes and Additional Quotations**

Themes	Additional Quotations
E-pro-players are eager to improve their skills through training.	<ul style="list-style-type: none"> <li>• They are insanely dedicated, studying their opponents’ games and trying to improve constantly. They go through the toughest training sessions and work hard to be the best because they want to be the best. It fuels their fire and keeps them grinding day in and day out. (Interviewee #32)</li> <li>• The way they train, the intensity they bring to every drill and practice session, it is like they are possessed by this drive to keep pushing themselves to the limit. You can see it in the way they train and the hunger to improve. There is a drive in them to do their best, and nothing is going to stand in their way. (Interviewee #33)</li> </ul>
Stressful training causes e-pro-players to feel exhausted.	<ul style="list-style-type: none"> <li>• Take the KPL finals, for example. My team would practice all night to figure out how to counter the other team’s moves. It is crazy how much they push themselves, even though they are already exhausted. It is understandable that they get so stressed and exhausted when training. They are like they are running on fumes, but they just keep going because they know how important the match is. (Interviewee #27)</li> <li>• It is crazy how much these players have to deal with physically and mentally. They have to push their bodies all the time during training and high-stakes matches, and it really takes a toll. They are always exhausted. (Interviewee #1)</li> </ul>
E-pro-players are motivated to meet the rigorous demands of training and unpredictable games.	<ul style="list-style-type: none"> <li>• It is like this unstoppable drive that makes me give it all I have got, no matter how brutal the training gets. I know deep down that going all out is the only way I will come out on top. (Interviewee #6).</li> <li>• Motivation ignites them, like magic. They hit the training ground with such a fierce passion and energy that does not let go of it. It is like they are possessed by this hunger to be the best that will not let go, even in spite of the odds against them. (Interviewee #4)</li> </ul>
A lack of clarity in esports job prospects and regulations causes e-pro-players to feel exhausted.	<ul style="list-style-type: none"> <li>• The reality of e-sports is that players are constantly on the edge, never knowing what is going to happen next. It is a rollercoaster ride, and for some players, that feeling of uncertainty causes them quite a bit of anxiety. (Interviewee #21)</li> <li>• This double pressure makes many players [e-pro-players] feel powerless and exhausted, as they are not only faced with the struggle of gameplay, but also the uncertainty of their career prospects. This double pressure makes many players feel powerless and exhausted in their careers. (Interviewee #41)</li> </ul>
E-pro-players find it difficult to cope with the uncertainty of the environment.	<ul style="list-style-type: none"> <li>• When these professionals [e-pro-players] in the esports industry start feeling uncertain about what the future holds, feeling like everything is uncertain, that is when they can really fall into a negative mindset as it is like they get caught up in this downward spiral of pessimism that stains the whole way they think. (Interviewee #35)</li> <li>• This stress can be attributed to the uncertain nature of the esports environment. The constant emergence of new games, updates, and strategies is an important reason esports have become so dynamic and ever-changing. Players [e-pro-players] have to constantly adapt and learn new skills in order to remain competitive. (Interviewee #39)</li> </ul>
The inability to cope with the uncertain esports environment can cause e-pro-players to struggle in developing the resilience needed to overcome losses and setbacks.	<ul style="list-style-type: none"> <li>• It is a kind of pressure because the environment is unpredictable. In order to remain competitive, players must constantly adapt and learn new skills. Having new games, updates, and strategies emerge all the time makes esports so dynamic and constantly evolving. A young player [e-pro-player] may find this burden extremely burdensome. (Interviewee #45)</li> <li>• My career as a player [e-pro-player] has been affected by the uncertainty that exists in the [esports] environment. We are often confused by the ever-changing job roles and requirements. I decided to retire myself because as a professional Overwatch player, my entire project was cancelled, and switching to another game was unsuccessful. In fact, the period before I retired was extremely challenging. (Interviewee #6)</li> </ul>
Heightened sensitivity to unpredictability in esports can increase mental strain, as e-pro-players struggle with anxiety and maintaining focus.	<ul style="list-style-type: none"> <li>• It was common for my friends and teammates to resign suddenly, retire because of injuries, or switch to live streaming. I sometimes felt confused and sad talking about it. [The unpredictability of] our future causes me anxiety, and it makes it difficult for me to focus on training and competition. (Interviewee #50)</li> <li>• As a manager of an esports club, I found that players [e-pro-players] face enormous psychological pressure due to the uncertain nature of the industry. It was difficult for them to adapt to frequent event arrangements, changing game rules and technical updates. (Interviewee #42)</li> </ul>
E-pro-players believe that skills and talents related to gameplay cannot be significantly improved.	<ul style="list-style-type: none"> <li>• I have observed that some pro-players believe their talents are fixed. Although players continue to train daily, they still believe they cannot improve their basic intelligence and reaction speed significantly despite continuous efforts. (Interviewee #14)</li> <li>• Despite their efforts to improve their skills, some players [e-pro-players] still believe that their basic intelligence remains fixed. They believe they can learn new skills and strategies, but these cannot change their basic abilities. (Interviewee #21)</li> </ul>
E-pro-players believe they will not improve after training, which reduces their enjoyment and motivation to engage in training.	<ul style="list-style-type: none"> <li>• It is hard for me to get over the feeling that training does not improve me. If I do, I get really exhausted about it, and this is why I lose motivation in training. I do not have the drive to train hard because of it. I am not motivated to train because of it. It is difficult for me to get over that feeling, and when I do, I will get really exhausted about it. (Interviewee #19)</li> <li>• The problem with some players is that if they feel their level has not improved after many training sessions, they will feel tired of training, lack enthusiasm, and behave negatively in the team. (Interviewee #29)</li> </ul>

Note:  
Themes are linked to the framework presented in Figure 3.

**Table 5: Themes and Additional Quotations (Continued)**

Themes	Additional Quotations
Avoiding failure and challenges in training is perceived as a reflection of the innate abilities of e-pro-players.	<ul style="list-style-type: none"> <li>• A common misconception among players [e-pro-players] is that failure proves they are not good enough, so they do not push themselves during training. They lose motivation because if they just stay from falling, then there is no point in training hard in esports. In esports, if you do not keep improving, you will fall behind and end up stressed out. (Interviewee #17)</li> <li>• It has been my experience as a club manager that some players avoid challenging themselves in training because they fear failure will reveal their inadequacies. As a result of their concern that poor performance will be viewed as lacking talent, some players are reluctant to try new roles or new tactics. This risk-averse mentality not only affects their growth, but also affects the tactical diversity of the entire team. (Interviewee #32)</li> </ul>
E-pro-players who have a fixed mindset cannot keep up with changes in the esports environment.	<ul style="list-style-type: none"> <li>• Esports markets change rapidly, and some games suddenly become unpopular or even cease operation. The situation would be particularly challenging for players who believe their skills are fixed in this case. After all, they must always keep up with the market, otherwise, their careers become unstable. (Interviewee #49)</li> <li>• It can be easy to get caught off guard by policy changes or market uncertainties. Some of our players [e-pro-players] believe that their talents and skills are fixed. Consequently, they feel that no matter how hard they work, they will not make much progress when faced with new policies or rules. It is difficult for them to stay competitive in their careers because of this mentality. (Interviewee #24)</li> </ul>
E-pro-players who believe their talent is fixed suffer from a fear of uncertainty.	<ul style="list-style-type: none"> <li>• It can be overwhelming to feel uncertain, especially when unexpected events disrupt our carefully planned plans. We prepared for a competition for several months, but the rules were changed a few days before it was scheduled. I am very upset by such an abrupt change. My ability is limited, so I do not think I will be able to adjust to these changes quickly enough. I feel frustrated and helpless every time I experience this. (Interviewee #8)</li> <li>• I am always worried about uncertain changes. If the game is suddenly updated or new competition rules appear, I will feel uneasy because I fear that my skills and tactics will not be able to adjust. I worry that I will not be able to perform as well as before. (Interviewee #11)</li> </ul>
E-pro-players with a fixed mindset resist change.	<ul style="list-style-type: none"> <li>• Some players, usually more experienced ones, are afraid that trying new methods will result in failure, so they continue to use the old methods. This resistance to change would ultimately limit their development. (Interviewee #21)</li> <li>• The club has players who believe they have reached the peak of their careers and are hesitant to accept change due to complacency and a lack of long-term vision. If they remain the same, they feel they can achieve good results, and they do not wish to face changes that might present more challenges and uncertainties. Besides affecting their own progress, this attitude also impedes the overall development of the team. (Interviewee #22)</li> </ul>
E-pro-players build strong bonds with their coaches.	<ul style="list-style-type: none"> <li>• I understand the importance of developing a strong relationship with my players [e-pro-player] as a coach and former player. It is not only important for their performance, but also for their personal growth as young adults. I like to spend time with them, and they trust me. During training, I try to understand their personalities and needs to provide more targeted guidance and support. (Interviewee #34)</li> <li>• I believe that my relationship with my coach is crucial to my growth. I trust him deeply and he not only guides me technically but also supports me emotionally and psychologically. (Interviewee #31)</li> </ul>
E-pro-players feel supported by their coaches and are motivated to train.	<ul style="list-style-type: none"> <li>• As a result of establishing a good relationship with my coach, I was able to make faster progress in my training as well. (Interviewee #40)</li> <li>• When you feel that you belong to your coach, you want to train. If your coach believes in you and has your back, you are motivated to train. Feeling valued and understood is more important than external rewards for you. Having that kind of connection encourages you to go the extra mile and not get exhausted. (Interviewee #2)</li> </ul>
E-pro-players engage more fully in training as they build trust and communication with their coach.	<ul style="list-style-type: none"> <li>• Communication and trust flourish when the coach and player [e-pro-player] have a strong bond. As a result of that trust, you can fully engage in training, absorbing their guidance without second-guessing. Your confidence grows knowing your coach believes in you. Additionally, you feel less stressed because your mentor is by your side. Your game will soar as a result of that powerful connection. (Interviewee #5)</li> <li>• When we first formed the current team, some players [e-pro-players] were sceptical about the new training methods, but as they interacted with the coach more, they gradually began to trust him. The trust made them more focused in training and more actively engaged in our training programs. As a result, training was more effective. (Interviewee #15)</li> </ul>
Coaches who have strong relationships with e-pro-players can provide personalised support and encouragement during training sessions.	<ul style="list-style-type: none"> <li>• When I sustained a hand injury, my coach provided me with technical training arrangements as well as emotional support. The intensity of my training would be adjusted according to my recovery progress, as well as strategies designed to avoid too much hand manipulation. At the same time, he often talked to me, encouraged me to maintain a positive attitude, and helped me overcome psychological pressure and anxiety. I was able to retain motivation and confidence and eventually recovered completely. (Interviewee #19)</li> <li>• I can tailor training plans that are more suitable for each player by understanding their strengths, weaknesses, and personality, as well as provide special guidance and encouragement when they face challenges. My encouragement and support are very important to them since they spend more time with me than with their parents and family. (Interviewee #25)</li> </ul>

Note:

Themes are linked to the framework presented in Figure 3.