

Abstract

This study adopts the Athletic Career Transition (ACT) model to explore the experiences of Korean dual career (DC) judokas during their junior to senior transition (JST) using a longitudinal approach. We recruited 12 Korean elite judokas, all of whom were in their first year of university during their initial interview. Participants were organized into three focus groups, with three rounds of interviews conducted over approximately two years, totaling nine focus group sessions. Thematic analysis was applied, which led to the identification of three key themes: (a) Multifaceted challenges, (b) Coping strategies, and (c) Perceived needs of DC athletes prioritizing sport over study. The results indicate that Korean DC judokas share some common challenges (e.g., increased training demands, balancing their studies with training demands) with their European counterparts, but they also face unique challenges (e.g., managing weight control, laundry duties, relationships with senior judokas), specific to the Korean judokas. Their coping strategies include both internal resources (e.g., focusing on performance target, utilizing resilience) and external ones (e.g., seeking social support), emphasizing the critical role of psychological support during their JST. Proactive psychological support is recommended through a specialized system tailored to this group. Given that Korean DC judokas significantly prioritize sport over education, this system should also address balancing both sport and education.

Keywords: career development and transition; dual career; judo; junior to senior transition; student-athletes

25 **Korean Dual Career Judokas' Junior-to-Senior Transition: A Longitudinal Study**

26 In recent years, particularly over the past decade, there has been an increase in research
27 on the transition from junior to senior sport levels, known as the junior-to-senior transition
28 (JST; Drew et al., 2019). This area of study has expanded alongside the growth of dual career
29 (DC) research, shifting focus from studies primarily centered on athletic retirement
30 (Stambulova et al., 2021). DC defined as “a career with two major foci on sport and studies or
31 work” (Stambulova & Wylleman, 2015, p.1) has been a significant topic for researchers in
32 sport career transition and development. Following the establishment of the EU DC Guidelines
33 in 2012, which set an agenda for collaboration among researchers, practitioners, and
34 policymakers, the discourse on European DC has evolved accordingly (Stambulova &
35 Wylleman, 2019). As a result, European DC research is currently leading the global DC
36 scholarship (Stambulova et al., 2023). Based on the established literature in the European
37 context, DC athletes experience three key DC transitions: (a) from secondary to upper
38 secondary education (e.g., Stambulova et al., 2015), (b) from upper secondary to higher
39 education, which typically coincides with the period when DC athletes go through JST (e.g.,
40 Defruyt et al., 2020; Wylleman et al., 2020), and (c) from upper high education graduation to
41 DC including sport and work (Torregrossa et al., 2015). Among DC athletes, they can be
42 categorized into (a) students doing sport, who pursue their dream in sport but eventually choose
43 more educational oriented pathway, (b) athletes trying to study, who prioritize sport as their
44 passion and maintain education as a need, and (c) students-athletes searching for an optimal
45 DC balance (Ramis et al., 2023; Stambulova & Harwood, 2022). In this respect, DC athletes
46 who are *trying to study* and have recently gone through JST are focused on this present study.

47 JST, which is typically marked by an age range from 18 to 24 (Bennie & O'Connor,
48 2006), is recognized as a crucial moment in an athlete's journey, where coping with the diverse
49 demands and challenges of transitions, including competitive, training, and non-athletic aspects

50 of life, can be particularly challenging (Stambulova et al., 2009). At the same time, athletes
51 often identified JST as the most challenging within-career transition and many athletes
52 struggled to cope effectively with this transition (Franck & Stambulova, 2020). As athletes
53 transition from competing with their under-20 peers to broader age categories, they find
54 themselves facing a number of challenges (Drew et al., 2019). They cope with tougher
55 competitors and rigorous training regimes, putting both their physical and psychological
56 resilience to the test. Simultaneously, they are transitioning from teenagers to young adults,
57 experiencing significant cognitive, emotional, and physical changes (Morris, 2013; Wylleman,
58 2019). On top of this, they may be transitioning academically, such as moving from secondary
59 to higher education (Pummell et al., 2008; Wylleman, 2019). Athletes also perceive the junior-
60 to-senior transition (JST) as a significant step up, anticipating a substantial increase in their
61 training intensity and competitive standards.

62 Support, especially from coaches, becomes invaluable at this stage. From coaches'
63 perspectives, coping strategies such as problem-solving, acceptance of responsibility, self-
64 control, and positive reappraisal play a critical role in managing this transition effectively (Finn
65 & McKenna, 2010). The efficacy of this transition often intertwines with the athlete's evolving
66 personal identity and personal development (Stambulova et al., 2009; Stambulova et al., 2023).
67 Studies have consistently highlighted the physical and mental strains athletes experience during
68 the JST. On the physical side, athletes need to manage heightened standards for performance
69 and training. On the psychological side, they deal with increasing expectations and a restricted
70 understanding of senior-level requisites (Franck et al., 2018). Spanning several years, the JST
71 phase exposes athletes to extended durations of ambiguity and on-going challenges
72 (Stambulova et al., 2009). Drew et al. (2019) outlined several findings from their systematic
73 review on the JST. They noted that athletes with adequate financial, social, and material support
74 tend to manage the JST more effectively; environments where the organization's values and

75 principles align with youth development culture can enhance the success of JST. Combining
76 different levels of support—individual, external, and cultural—provides more favorable results
77 than singular approaches, which is linked to the holistic approach. In this context, the Holistic
78 Athletic Career (HAC) model (Wylleman, 2019) highlights a comprehensive understanding of
79 athletes’ professional development from a wide-ranging perspective including athletic,
80 psychological, psychosocial, academic & vocational, financial, and legal levels. For instance,
81 mental challenges faced by athletes, such as anxiety or depression from JST pressures, could
82 relate to psychosocial issues, impacting their performance (Wylleman, 2019). Thus, integrated
83 approaches are critical to understanding athletes’ transition needs.

84 Investigations into JST have been conducted worldwide, with key findings emerging
85 from nations including Australia, Canada, New Zealand, Russia, and the U.K (Drew et al.,
86 2019; Stambulova et al., 2012). Likewise, a significant portion of this research has a Western
87 orientation. To capture a broader view of JST, there is a pressing need to branch out into other
88 regions, such as Asia (Park et al., 2013), to develop a more representative understanding of this
89 critical athletic transition. Cultural diversity presents a significant challenge often faced by
90 sport and exercise psychology professionals, highlighting the crucial need for cultural
91 competence within the field and advocating for culturally competent approaches that consider
92 the sociocultural context and fluid nature of cultural difference (Ryba et al., 2013). In addition,
93 Ryba et al. (2024) recommended that researchers and professionals in field of sport and
94 exercise psychology give great attention to underrepresented athlete group such as women,
95 indigenous communities, and additional marginalized demographics. Drew et al. (2019) also
96 recommended expanding research samples in studies on JST to include diverse cultures and
97 female athletes. This would provide a deeper understanding of how different contexts affect
98 JST experiences. They also recommended examining the specific challenges and aids to JST
99 in individual sport, which could guide sport-tailored interventions to support athletes during

100 the JST. Various sports such as football, ice hockey, equestrian, track and field, basketball, and
101 rugby have undergone JST analysis in the previous studies (e.g., Bennie & O'Connor, 2006;
102 Finn & McKenna, 2010; Morris, 2013; Pummell et al., 2008). However, more exploration
103 across different sports is necessary due to their unique demands and cultural context. To this
104 end, this study employs the Athletic Career Transition model (ACT; Stambulova, 2003) to
105 explore the challenges Korean judokas face, their coping strategies, and their transition needs
106 during their JST. This model identifies transitions process as managing demands or challenges
107 using suitable coping strategies, taking into account personal and environmental resources and
108 challenges. Thus, the outcomes and pathways of transitions can be determined by the
109 effectiveness of coping strategies during JST. The model predicts two primary transition
110 outcomes: (a) a successful transition, the outcomes of effective coping, and (b) a crisis-
111 transition, the outcomes of ineffective coping. Such crisis-transitions can result in either
112 delayed success via appropriate intervention or in negative outcomes such as dropout,
113 overtraining, or substance abuse due to unresolved demands (Stambulova, 2003). The model
114 is, thus valuable for exploring Korean DC judoka's experiences of JST. It helps identify
115 challenges, coping strategies, and transition needs during their JST, critical for their positive
116 career development and transition.

117 Though judo focuses on personal growth, judokas foster a sense of community during
118 training, nurturing mutual aid (Lee, 2002). Sport stresses mental equilibrium, resilience, and
119 humility, guiding athletes towards self-betterment (Kim et al., 2015). This attitude fosters a
120 nurturing training atmosphere and preserves judo's core values, including respect and integrity
121 (Yard et al., 2007). South Korean (thereafter Korean) national judokas train at a designated
122 center, embodying a collective approach to personal growth, even in an individual sport (Lee,
123 2002). Centralized training centers, where athletes train and stay, are integral to Korea's elite
124 sports culture, not limited to judokas. Many of Korea's top athletes, including judokas,

125 experience intense training sessions during their high school years, typically in specialized
126 facilities that resemble boot camps (Park et al., 2012). While these student-athletes strive to
127 balance their studies and sports similar to DC athletes globally, many in Korea lean more
128 towards sport, often at the expense of their education. This is heightened by the government's
129 preference for global sport achievements, making it challenging for student-athletes to devote
130 time to academics (Park et al., 2012). Highlighting Korea's sport culture, the 1972 Athletic
131 Specialist System (ASS) offered scholarships to student-athletes, allowing them to join
132 prestigious institutions, irrespective of their academic merits (Park et al., 2012). With these
133 scholarships leaning more on athletic success than scholastic achievements, it is reinforced a
134 society that emphasizes sport over academics. This paradigm shift, in a way, challenges the
135 age-old belief in Korea of valuing higher education (Shin & Nam, 2004). Along with ASS, the
136 Korea Armed Forces Athletic Corps, called 'Sang-Mu', was initiated in 1986; two years post
137 the inception of the Ministry of Sport. It played an instrumental role in elite sport development,
138 letting select athletes from 25 sports train full-time during their mandatory 2-year military
139 service. In 1973, Korea also implemented a military service exemption for medalists from the
140 Olympic and Asian Games, which significantly influenced male athletes' careers in Korea
141 (Park et al., 2012), which is very unique political context for high-performance athletes.

142 Building on the identified gaps in the literature and guided by the ACT model
143 (Stambulova, 2003), this study aims to explore the experiences of Korean elite judokas during
144 their JST by adopting a longitudinal approach. The research questions are as follows: (a) what
145 challenges have Korean DC judokas faced during their JST, and how have these challenges
146 evolved over time? (b) what coping strategies do they employ to manage these challenges, and
147 how have these strategies changed over time? And (c) what types of support do they perceive
148 as necessary during their JST?

149

Methodology

150 Design and Philosophical Underpinning

151 This study used a longitudinal design to achieve the aim and answer the research
152 questions. In particular, we believed that the longitudinal approach of this study would enable
153 us to capture any changes in the challenges and coping strategies experienced by Korean DC
154 judokas over time (Ojala et al., 2023), thereby enhancing our understanding of their needs and
155 dual career development and progress through the critical transition period, JTS. Epstein (2002)
156 outlined three qualitative longitudinal research strategies: (a) “ongoing studies within a
157 consistent small group”, (b) “sporadic studies at set or varied intervals”, and (c) “revisiting
158 research after a considerable time gap since the initial study” (p.64). By adapting the second
159 approach, we interviewed Korean DC judokas at three different periods, offering an extended
160 view of the JST experience. While such longitudinal approaches have been applied in other
161 areas such as education (e.g., Busse & Walter, 2013), health psychology (e.g., Puig et al., 2013),
162 and organizational behavior (e.g., Kinnunen et al., 2000), it is less common in sports
163 psychology and career transitions but recommended (Park et al., 2013; Torregrosa et al., 2015).

164 We considered focus group methodology as the most appropriate to explore Korean DC
165 judokas’ experiences and insights into their JST. In this approach, a trained interviewer (i.e.,
166 both authors in the context of this study) conducts an interview session with a small group,
167 asking open-ended questions within a supportive environment, which allows all participants to
168 comfortably share their experiences (Houghton et al., 1995). This approach also provides a
169 range of benefits for research purposes: (a) it encourages open dialogue among participants
170 (Krueger & Casey, 2000), allowing the judokas to discuss their experiences while listening to
171 others who are at the same stage of their athletic careers, which can further enhance the
172 discussion, (b) despite assumptions that group settings limit openness, they are often seen as
173 enhancing openness rather than inhibiting it (Slater & Tiggemann, 2010), which was relevant
174 to the judokas as they had shared experiences to discuss and could empathize with each other’s

175 experiences, and (c) it facilitates natural dialogue among participants, who use their own
176 language and communicate more with each other than researchers; the significance of this is
177 evident for participants in this study, transitioning from adolescence to young adulthood, who
178 potentially use a language style distinct from that of the adult authors (Slater & Tiggemann,
179 2010). Thus, this approach was deemed most appropriate.

180 This approach was also considered due to the presence of two gender-divided judo
181 teams at the participants' university. While both teams have opportunities to train together
182 during events such as the winter boot camp, their training schedules usually vary between male
183 and female teams. Thus, for participants' convenience, it was more feasible to organize focus
184 group interviews separately for male and female groups. In addition, at the time of the initial
185 interview, the participants were in their first year and were more comfortable discussing their
186 experiences with teammates of the same gender, which facilitated more open discussions. This
187 was confirmed by participants during the focus group discussions. Researchers (e.g., Bagnoli
188 & Clark, 2010; Grey et al., 2017) also demonstrated that employing longitudinal focus groups
189 is critical for qualitative research aiming at exploring changes in perceptions and behaviors of
190 groups.

191 The present study is grounded in the interpretivist paradigm in order to better
192 understand the lived experiences of Korean DC judokas during the JST by exploring the
193 challenges they have faced, how they have coped with them, and their perceived needs to
194 navigate the JST more effectively. While studies on DC athletes are well-established,
195 specifically in the Western context, adopting such an interpretive approach can enable us to
196 develop an in-depth understanding of the phenomenon. This, in turn, hopefully informs other
197 studies with cultural contexts beyond Western countries that remain insufficiently explored
198 (Elbardan & Kholeif, 2017). To undertake our interpretative investigation, the study was
199 informed by a realist ontology that acknowledges the existence of a reality independent of our

200 perspectives, and our understanding of this reality for this study was shaped by the ACT model
201 (Stambulova, 2003). This informs both the development of the interview guide and the
202 interpretation of the findings, specifically by directing greater focus towards the challenges
203 faced by Korean DC judokas, their strategies for coping, and their needs during the JST.
204 Concurrently, the study was also guided by subjectivist epistemology, suggesting that
205 knowledge is constructed through personal experiences and subjective understanding (Potrac
206 et al., 2014; Sparkes, 1992). This highlights the notion that, although an objective reality exists,
207 our engagement with and understanding of this reality are shaped by personal experiences. For
208 instance, while DC athletes may commonly experience similar phases and associated
209 experiences during the JST as informed by the ACT model (Stambulova, 2003), the specific
210 experiences and perspectives of individual DC athletes during the JST can vary significantly
211 based in their cultural context, training environment, and the specific nature of their sport. We
212 appreciate that interpretivism is widely associated with a relativist ontology, perceiving that
213 reality as multiple, constructed, and dependent on perception (Smith & Sparkes, 2008).
214 However, this common perception may be misleading, as the majority of interpretivists do not
215 adhere to a relativist ontology (Packard, 2017). Instead, interpretivists engage with deeply with
216 complex issues surrounding the relationship between subject and object, recognizing the
217 constancy of the real world and seeking to understand it via personal experiences and subjective
218 perspectives (Schwandt, 1994). In this respect, while the JST experiences of Korean DC
219 judokas may be interpreted as a collective process and phenomenon, their JST is also perceived
220 and interpreted on a personal level (McDougall et al., 2020).

221 In this study, we concentrated on the JST experiences of Korean DC judokas at a
222 university renowned for its specialization in elite sport. Both authors bring a rich background
223 in judo and DC pathways to the present study, drawing on their personal experiences and

224 academic expertise¹ in the field their unique perspectives are critical in exploring the complex
225 dynamics of JST. However, we acknowledge that our insider knowledge has the potential to
226 cause bias. To mitigate this, we have implemented rigorous methodological procedures,
227 including team discussions, audit trails, and independent evaluations and critiques. These
228 measures are detailed in the ‘Data Analysis and Rigor’ section to ensure our analytical process
229 remains objective and reliable.

230 **Participants**

231 By applying purposive sampling and utilizing the second author’s network, we
232 recruited 12 participants, comprising eight males and four females, all in their first year at a
233 sports-focused university in Korea. The initial focus group interview occurred while they were
234 experiencing the JST. In the context of Korean judokas, the JST typically coincides with the
235 transition from secondary school to higher education, a phase where competition categories
236 and performance levels significantly advance beyond those in secondary schools. Purposive
237 sampling was deemed appropriate as it allowed us to select participants who were experiencing
238 the JST, ensuring data was highly relevant and rich. This approach also enhances the feasibility
239 of the study by targeting a specific group, ensuring consistent participation in our longitudinal
240 study (Etikan et al., 2016). The inclusion criteria were: (a) being over 18 years old, (b)
241 transitioning from junior to senior level, (c) having experience competing at national and
242 international levels, and (d) following DC pathways (i.e., balancing sport and education).
243 Athletes who did not meet all the inclusion criteria were excluded. All participants from the

¹ The lead author had trained as a judoka for five years in Korea when she was in primary school and joined elite judo training until she quit and decided to focus on academic commitments from secondary school. She won medals at regional competitions during that time. The lead author’s PhD project was focused on sport career transitions, including DC pathways, and she has been involved in multiple research projects in this area at a U.K. university, which is attended by a number of DC athletes. During her upper primary school years, she engaged in elite judo training for three years and earned a black belt in judo. The co-author, a former elite judoka at the international level from Korea, was a DC athlete throughout his educational journey, up until his master’s degree. After retiring from competitive judo, he pursued and completed a PhD with a focus on judo coaching. Given their experiences, both authors possess extensive knowledge and understanding of judo, DC as well as JST.

244 same university, which is recognized for its commitment to sport and attracts top aspiring elite
245 athletes in Korea. During the first interviews, participants' ages varied between 18 and 19 (M
246 $= 18.33$, $SD = 0.41$). Full details are in Table 1. Note that Judoka 4 missed the second interview
247 at the winter training camp due to injury and was absent from the third as he left his sport.

248 [Please insert Table 1 near here]

249 **Data Collection**

250 After securing institutional ethical approval, we used the second author's contacts to
251 recruit a purposive sample (Noy, 2008). Taking into account the participants' preferences and
252 availability, we organized three focus groups: Group 1 ($n = 4$; male), Group 2 ($n = 4$; female),
253 and Group 3 ($n = 4$; male). We conducted three rounds of focus group interviews: in May/June
254 2021 (during the first semester of Year 1), in January 2022 (after completing Year 1 and just
255 before the start of Year 2), and in March 2023 (shortly after the commencement of Year 3). It
256 is important to mention that in Korea, the first semester begins in March, and the second starts
257 in September. Korean elite judokas also routinely attend a winter training camp every January,
258 preceding the start of the new semester in March. In addition, these students faced the
259 challenges of the COVID-19 outbreak during their last year of secondary school, a situation
260 that persisted and influenced them up to the second round of our focus group interviews.
261 Participants received semi-structured interview questions in advance, allowing them to review
262 questions to check if they were comfortable with them for ethical reasons. This semi-structured
263 approach also ensured flexibility, letting participants discuss experiences beyond the set
264 questions (McArdle et al., 2012). In the first interview round, the lead author connected via
265 Microsoft Teams from the U.K., while the second author was on-site at the university. The lead
266 author led the second round in person at a training camp, and the second author conducted the

267 third at the university. Audio and video were recorded in the initial session using Microsoft
268 Teams, while voice recordings were used for subsequent sessions.

269 To maintain consistency throughout our interviews, we developed an interview guide
270 based on both our research questions and the ACT model (Stambulova, 2003): (a) sport
271 background (i.e., when did you start your elite judo career?, what was your motivation to
272 participate in elite judo?), (b) challenges during JST (i.e., what was your overall experience in
273 transitioning from upper secondary school to university?, what challenges have you
274 experienced?), (c) coping strategies (i.e., how did you address such challenges? Was any
275 support available?), and (d) transition needs (i.e. what support do you perceive is necessary to
276 better cope with JST challenges?). For the subsequent second and third rounds, our guide's
277 emphasis shifted to any alterations in their experiences since the last set of interviews (e.g.,
278 Can you recall the challenges we discussed in our last session? Are you still facing the same
279 challenges, or have there been any changes? How have you addressed these challenges? Have
280 your strategies for addressing them changed in any way?). Before participating, each
281 participant received an information sheet outlining the study's purpose, methodology, potential
282 risks, and benefits. After reviewing this, they were asked to sign a consent form confirming
283 their willingness to participate. With the signed consent forms in hand, we scheduled the focus
284 group interviews. Distributing the information sheet and collecting signed consent ensured
285 participants fully understood the study and their rights, highlighting our dedication to ethical
286 research principles such as informed consent and respect for participant autonomy. The
287 interviews for Groups 1, 2, and 3 lasted 185, 175, and 182 minutes, respectively ($M = 180.67$,
288 $SD = 4.19$). All interviews were transcribed verbatim. For confidentiality, participant names
289 were replaced with codes (see Table 1).

290 **Data Analysis and Rigor**

291 Both authors were involved in the entire analytic process whilst the lead author took
292 the lead in the process by coordinating the data collection, overseeing the coding of data, and
293 synthesizing the findings. The lead author facilitated discussions that helped refine and validate
294 the themes, ensuring that interpretations from both authors were consistent with the data. In the
295 meantime, the co-author contributed by critically reviewing the coding, providing critical
296 interpretations, and ensuring the rigor of the analysis through regular audit checks. This
297 collaborative effort ensured a comprehensive and reflective approach to data analysis,
298 enhancing the trustworthiness of the qualitative study.

299 We employed Braun and Clarke's (2006) six-stage thematic analysis to identify
300 significant patterns in the data following a structured and systematic approach (Braun & Clarke,
301 2019). By repeatedly reviewing transcripts and interviews, preliminary insights about
302 participants' JST experiences were identified while applying the ACT model (Stambulova,
303 2003). To enhance coding reliability (Braun & Clarke, 2019), the authors discussed regularly
304 via phone or video calls to finalize and unify perspectives on identified themes. Each theme
305 was distinctly labelled, aiming to present a trustworthy account of participants' experiences.
306 Since maintaining rigor and reliability in qualitative research is crucial, we enhanced our
307 study's rigor through several measures. First, through team discussions, we ensured our
308 findings aligned with our study's aim and research questions, which facilitated a reflective
309 process. Next, we developed an 'audit trail', based on Brown et al.'s (2018) recommendations,
310 detailing our methods and decision rationale. This trail includes detailed coding and theme
311 development process and how data were interpreted at different stages. Lastly, we conducted
312 independent evaluations and critiques internally (Marshall and Rossman, 2006) that both
313 authors engaged in a critical review of the entire analysis, challenging each other's
314 interpretations. This involved revisiting the data several times to ensure that our interpretations
315 were consistent with the data. This iterative review process significantly enhanced the

316 trustworthiness of the analytical process and our findings. It should be also noted that during
317 the data analysis, we identified the collective insights and shared experiences of the participants
318 during. We used respective individuals' quotes that represented common themes and insights,
319 highlighting key points and perspectives identified from the group discussions.

320 **Results**

321 From the thematic analysis, three key themes were identified, each outlining the
322 detailed experiences of Korean DC judokas. 'Multifaceted Challenges' encompasses their
323 perceived challenges during the JST, including athletic, psychosocial, and DC challenges.
324 'Coping Strategies' demonstrates how they manage these challenges, which are categorized
325 into internal and external resources. Lastly, 'Perceived Needs of DC Athletes Prioritizing Sport
326 over Study' focuses on the needs critical for better navigating challenges and advancing their
327 careers (for further details, see Table 2).

328 [Please insert Table 2 near here]

329 **Multifaceted Challenges**

330 *Athletic Challenges*

331 Training demands were highlighted as challenges throughout all three interview rounds.
332 Participants described the training as more intense and challenging in the first round compared
333 to the later sessions. However, even in the last interviews, they still found the training demands
334 tough. Particularly, in the second round, female judokas gave detailed descriptions of their
335 training and expressed how hard it was: "We do a lot of stair-running exercises, and also some
336 other exercises like hopping on one foot, carrying a teammate and running, carrying them in
337 my arms and running... It's painful..." (Judoka 7). However, it should also be noted that as they
338 progressed, they adapted to the training demands and built-up confidence although these
339 training demands remained high, reflecting their growing capabilities. While they managed

340 intensive daily training, many participants struggled with weight control challenges, crucial in
341 judo due to weight categories. This was an enduring challenge for many. They had been
342 monitoring their weight throughout their athletic career, but it became more challenging at this
343 level due to the increased personal responsibility they held. In secondary school, coaching staff
344 had closely overseen their daily routines, including weight control. In contrast, they
345 experienced greater autonomy in this regard at university. For instance, Judoka 2 was
346 disqualified from a competition for not meeting his weight category, heightening his anxiety.
347 Judoka 11 also felt this anxiety but mentioned that he had learned to systematically control his
348 weight after the disqualification and intended to maintain his effective weight control routine.
349 Beyond weight control, injuries and the associated recovery time were significant challenges
350 for many participants throughout their university years. Notably, in the third round of
351 interviews, many had gone through injuries and their subsequent rehabilitation, leading to
352 significant frustration. There was a distinct difference in responses between male and female
353 judokas regarding this. While male judokas concentrated on recovery and retaining confidence
354 without feeling external pressures, female judokas felt additional stress, perceiving criticism
355 from senior peers and coaching staff when they could not participate in regular training.: “I got
356 injured and was hospitalized, receiving injections and undergoing rehabilitation... for about a
357 month? At that time, I was really conscious of others... especially the professor’s [head coach’s]
358 reactions... They give you that feeling, you know... suggesting you should endure it” (Judoka
359 7). Injuries appeared intrinsically linked to performance related anxiety, primarily because they
360 directly impact the judokas’ ability to compete. Many participants discussed that being unable
361 to participate in competitions due to injuries intensified their anxiety in relation to their future
362 athletic careers. This anxiety was predominantly driven by concerns over lacking good
363 performance records, which are critical for progression in competitive sports. Concerns about
364 a reduced career potential heightens stress and anxiety, as athletes are anxious about their

365 recovery as well as the risks of their competitive advantages and future opportunities. For
366 instance, Judoka 10 returned to competition before fully recovering, resulting in another injury:

367 It's tough to keep getting injured. I can't train properly because of it... I had just
368 finished treating my shoulder and was training well while competing, but I got injured
369 again in the last competition. I need to achieve good records to make progress...

370 During the third round of interviews, Judoka 6 was in rehabilitation, struggling with
371 performance-related anxiety, similar to Judoka 7. While injuries and performance pressures are
372 common in elite sport, by their third year, athletes experienced increased anxiety as they started
373 to consider their careers with greater seriousness.

374 *Psychosocial Challenges*

375 Transitioning from upper secondary school to university, they experienced lifestyle
376 disruptions caused by changes in their training culture and living environment. Except for
377 Judoka 11, all had lived in dormitories during their secondary school years, and they continued
378 to live in university dormitories. Although they found the university facilities and living
379 arrangements superior to those in secondary school (e.g., room arrangements with only two
380 individuals sharing an ensuite room equipped with air conditioning, and the presence of a
381 sauna), they struggled with laundry responsibilities, known as the '1st year judokas' duty'. On
382 the top of this, male judokas had the task of carrying water bottles (two liters each) for every
383 training session. These duties, both in dorm life and training, were viewed as challenges.
384 However, in subsequent interview rounds, they mentioned that such responsibilities were
385 transferred to the incoming cohort, easing their burdens: "In terms of daily life, it's very
386 convenient and I like it because I don't have to do laundry or things like cleaning. My first year
387 was probably the toughest. Training was hard, and after finishing training, I had to do laundry
388 and cleaning until late at night. I even had to do the older guys' chores as well" (Judoka 2).

389 Judoka 11 also shared this view. As they progressed to year 3 without any additional house
390 chore duties, they had more time to concentrate on training: “As I became a 3rd year student,
391 there’s no one to bother me in my daily life. So, I can just focus on the training. It feels good
392 to be able to concentrate on training without worrying about other things.” Some male judokas
393 found it challenging to get along with their senior judokas when transitioning to university,
394 feeling intimidated by them, while others found it easier due to their familiarity with the seniors
395 from their secondary schools. On the other hand, all female judokas initially struggled to form
396 connections with their senior judokas, but they fostered stronger bonds among themselves
397 instead. Over time, both male and female participants managed to establish positive
398 relationships with their senior judokas, improving their daily experiences. In fact, some even
399 forged such strong bonds with their seniors that they received support in both training and daily
400 life, further inspiring their commitment to judo.

401 I always followed [name of his senior judoka] around and did a lot of individual training
402 in addition to the group training... When I trained on my own, I would film videos of
403 my performance and ask him about my form and such, getting feedback (Judoka 9).

404 As athletes initially transitioned to university, they faced intense psychosocial challenges,
405 particularly in lifestyle disruptions and relationships with senior judokas, which eased
406 significantly in their later years. Improvements in lifestyle aspects (e.g., no longer having
407 laundry duties) and better relationships with senior judokas showed a positive correlation.

408 *Dual Career (DC) Challenges*

409 Regarding DC challenges, all participants initially struggled to balance their studies
410 with training demands. Though they had previously managed dual careers—sport and
411 academics—during secondary school, university academics posed a new challenge. Most of
412 them had fewer academic responsibilities in secondary school. This exception, prevalent in

413 Korea for elite athletes, allowed them to concentrate mainly on their sport. As a result, the
414 transition to a university environment—with mandatory class attendance and assignment
415 submissions—was overwhelming. By their third year, however, these challenges appeared less
416 challenging. Among them, both Judoka 3 and Judoka 6 stressed the importance of academics
417 for their future, noting their commitment to attending all teaching sessions: “There might be
418 reasons in the future that prevent me from doing judo. So, I believe that if I study hard at
419 university, I can develop knowledge, preparing for the future” (Judoka 3). Participants
420 eventually managed their dual roles as DC athletes but needed extra support, especially in their
421 first year, including detailed induction sessions, assignment guidance, and timetabling skills.

422 **Coping Strategies**

423 *Internal Resources*

424 The participants tended to independently overcome challenges by using their coping
425 skills, which served as their internal resources. When facing challenges, they commonly set
426 their sights on specific performance targets, such as taking first place in the upcoming
427 competition, making a successful recovery from injuries, or defeating a key rival in the next
428 fight. The judokas perceived themselves as resilient in the face of these challenges, likely
429 developed from their early engagement in elite judo: “I think I’ve been getting through it on
430 my own, without being influenced by others... having a hard time... then getting okay. I’ve
431 been repeating this process, and even though it’s been tough, I’ve continued to overcome it”
432 (Judoka 7). They employed this resilience during tough times, helping them remain motivated
433 and proactive rather than becoming overwhelmed by frustration: “when I felt like, ‘Ah, I really
434 want to quit.’ After overcoming those feelings and continuing, I’ve adapted. So instead of
435 thinking otherwise, I’m telling myself, ‘Get over it and keep going’” (Judoka 6). By their third

436 year, with adaptation to university life and clearer career goals, their increasingly evident
437 coping strategies showed a strengthening of these skills over time.

438 *External Resources*

439 Across the three interview rounds, the predominant coping strategies participants
440 utilized were seeking social support from parents, coaches, and peers along with focusing on
441 performance goals and leveraging their resilience as presented in the previous section. Of these,
442 seeking social support stood out as the primary coping strategy. The main sources of this
443 support were parents, coaches, and peers, and this assistance was especially valued during
444 tougher challenges, such as injuries. Both Judokas 7 and 10 emphasized the significance of
445 parental support throughout their university years: “whenever my dad calls, he asks me about
446 everything in detail. If I get hurt, he looks it up more thoroughly, finding rehabilitation or
447 treatment methods online [...] That kind of support really gives me strength” (Judoka 7).
448 Support from coaches was highlighted by many participants. They received support not only
449 from their current coaching staff but also from those at their secondary schools. Especially in
450 their first year, the support and care from coaching staff were significant to maintain motivation
451 and manage challenges: “Since my high school days, I’ve heavily relied on the coach who
452 taught me back then. Whenever things get tough... if I reach out to my coach, he always gives
453 me a lot of encouragement [...] I think when things are hard, the person I rely on the most is
454 my coach” (Judoka 5). Peer support was also considered crucial. They established close
455 relationships with each other right from the start and consistently provided mutual support.
456 This support, frequently mentioned throughout the various interview rounds, included not just
457 daily life, training, and competition, but also academic commitments. Particularly, male
458 judokas sought more academic help from their peers during their first semester, struggling more
459 than the female judokas: “we would get together with our peers, head-to-head, to discuss and
460 help each other out... Among us, [name of Judoka 3] is really good at studying. [...] So, we

461 often sought his help” (Judoka 10). Throughout the three interview rounds, participants
462 consistently reported strong social support networks. However, they did not mention or discuss
463 any organizational support received, such as that from the university. Despite academic
464 flexibility being available, as noted by participants in the previous section, they indicated a
465 need for further assistance in managing academic commitments.

466 **Perceived Needs of DC Athletes Prioritizing Sport over Study**

467 The most notable changes observed in the participants throughout the three rounds of
468 interviews were their evolving goals and motivation related to performance. In the first round
469 of interviews, the participants did not seem to have clear goals or strong motivation to reach
470 their full potential. Instead, they were preoccupied with managing their immediate challenges,
471 often feeling overshadowed by senior judokas who appeared more skilled: “when I came to
472 university, the older guys there were so skilled, far beyond comparison to those from my high
473 school days, which sometimes left me feeling frustrated” (Judoka 1). However, as they
474 transitioned into their second and third years, their confidence grew, and they began to establish
475 clearer career goals. Particularly, during the third round of interviews, as they entered their
476 third year, their performance goals were both clear and detailed, supported by strong motivation.
477 Their experiences from competitions in their second year strengthened their motivation,
478 pushing them to prove their skills before graduating if they wanted to continue a career in judo.
479 Judoka 8 remarked,

480 During a major competition, I confidently participated thinking I would place first, but
481 I was genuinely shocked when I lost... I cried a lot... I thought, ‘Is this all I’m capable
482 of?’ and felt regret and sadness. [...] After that competition, I got rid of the training
483 routine I had maintained since middle school and started anew without any set patterns

484 or superstitions. After making that change, I started winning first place in subsequent
485 competitions and felt my skills improving, which motivated me to work even harder.

486 Judoka 6 also noted that after overcoming her struggles with injury, she began to enjoy training
487 more: “As my lifestyle changed, I kept having fulfilling days, which boosted my self-esteem.
488 I’ve come to enjoy training more, and my confidence has increased”. It is worth noting that
489 many were anxious about the possibility of injury or re-injury, understanding that such issues
490 could greatly influence their performance in competitions: “I’m taking a break because I
491 injured my back. I had set a clear goal and was working hard towards it, but with this situation,
492 I’m feeling quite anxious. I wonder if I can win a medal before I graduate” (Judoka 9). Like
493 Judoka 9, others facing injuries and weight control issues also expressed anxiety about their
494 upcoming performances: “I still feel somewhat anxious about my weight... I’m doing well
495 now, but I worry that I might relax my efforts in the future, and I’m not sure how things will
496 turn out. So, I feel quite anxious about it” (Judoka 11). driven by clear goals, strong motivation,
497 and resilience, many remained determined: “I mean, I do feel the pressure, but I’m trying not
498 to let it get to me. I plan to train even harder than before to reach my goals” (Judoka 2).

499 Regarding their aspirations to achieve goals, maintain motivation, and manage injuries,
500 all participants emphasized the necessity for psychological support. Interestingly, during the
501 first and second rounds of interviews, eight male participants did not mention a need for
502 psychological assistance, with the exception of Judoka 3. In contrast, all female participants
503 indicated their need for psychological support from the beginning. This discrepancy seemed to
504 arise because many of the male participants, in particular, faced challenges such as injuries and
505 issues with weight control. These challenges adversely affected their mind-set and
506 psychological well-being. Even Judoka 2, who had been relatively reserved and did not express
507 any support needs in the initial interviews, highlighted, “there are many times during training
508 when it gets tough or when I don’t want to do it, so I need some support to keep up my

509 determination and continue training.” While the university did offer some general support, such
510 as sending text messages about available psychological services, none of the participants
511 utilized these services. They expressed a need for more tailored support specifically for their
512 teams rather than centralized services, which were often temporary rather than regular. The
513 need for psychological support became more evident as participants strived to achieve higher
514 goals, especially during periods of injury or when struggling with weight control issues. It
515 became apparent that male athletes felt a heightened pressure to distinguish themselves by
516 winning medals at major competitions. Such achievements would help them serve their military
517 duty at Sang-mu (Korea Armed Forces Athletic Corps) and secure a contract with a
518 professional team after graduation. Without such accomplishments, they would face mandatory
519 military service without any significant sporting achievements, potentially leading to an early
520 retirement from their sport: “if I can’t get good results and fail to join a professional team, I’ll
521 have to serve in the military. Without good results, I won’t be able to join Sangmu, and that’s
522 what I think would be the hardest” (Judoka 10). On the other hand, while female judokas were
523 not burdened by the pressures of military duty, they too felt driven and pressured to win medals
524 at major competitions. Their primary aim was to join the national judo team (only Judoka 7
525 had achieved this by the time of data collection) and sign up with a professional team upon
526 graduation. This became their central focus for their remaining years. The participants’
527 perceived transition needs focused exclusively on athletic progress and success, with no
528 mention of goals, plans, or needs related to the academic side of their dual career commitments.

529

Discussion

530 This longitudinal study spanning approximately two years illuminated the challenges,
531 coping strategies, transition needs of Korean DC judokas during their JST. The findings
532 provide both theoretical and practical insights that can enhance the experiences of Korean DC
533 judokas during their JST. Consistent with previous research, the JST phase was confirmed to

534 be mentally and physically demanding in this study (Franck et al., 2018). Issues such as training
535 demands, managing dual careers, injury management, and performance pressure have been
536 explored in earlier literature (Drew et al., 2019; Morris, 2013; Pummell et al., 2008). In addition,
537 our findings highlight unique challenges specific to the participants' sport and university
538 settings. Among these challenges, first-year students handling house chores for seniors have
539 not been identified in previous studies of other cultural contexts, to the authors' knowledge.
540 This appears to be specific to the Korean context. It is important to note that handling house
541 chores, in particular laundry, influences not only their dormitory life but also their training and
542 relationships with senior judokas. This can potentially affect team dynamics and performance
543 progression and may lead to conflicts. Such hierarchical relationships between the participants
544 and their senior judokas originate from Korean cultural practices, which are shaped by
545 Confucian principles originally from China. These principles have extended their influence to
546 neighboring East Asian countries such as Korea and Japan (Chang, 1997). In this context,
547 hierarchical age relations have formed in Korean society, with younger individuals expected to
548 respect and follow the guidance and instructions (or orders) of older individuals (Ryu &
549 Cervero, 2011; Zhang et al., 2005). This explains why the participants accepted doing their
550 senior judokas' house chores despite finding it challenging. Fortunately, these daily demands
551 and potential conflicts with senior athletes lessened as the participants progressed to their
552 second and third years. In some instances, participants even received significant support from
553 these seniors. In this respect, it is critical to highlight the evolution of these relationships; they
554 shifted from being sources of challenges to avenues of social support. While the Holistic
555 Athletic Career (HAC) model (Wylleman, 2019) does not distinguish senior athletes from other
556 teammates as sources of social support, for instance, in the Korean context, it is important to
557 separately recognize the roles of senior athletes and peers within teams as the findings in this
558 study show that they have different dynamics in this setting. Indeed, other researchers also

559 claimed that support from senior athletes plays a significant role in helping younger athletes
560 adjust to the new environment and the demands of competing at higher levels (Pehrson et al.,
561 2017; Pummell et al., 2008).

562 It was observed that the increased training demands after secondary school persisted
563 beyond just the first year, which is in line with the findings from previous studies (e.g., Drew
564 et al., 2019; Pummell et al., 2008). Although an increase in intensity was expected based on
565 previous research, the persistent nature of these challenges was particularly noteworthy.
566 However, as participants progressed, they adapted to these demands and their confidence grew,
567 which they were able to better cope with demands and challenges using their own internal
568 resources (Stambulova, 2003; Stambulova et al., 2021). As their skills develop, it becomes
569 evident that training requirements need to evolve accordingly. Unique to judo, the sport's
570 inherent requirements, such as weight control, became a significant source of anxiety for some
571 participants (Artioli et al., 2010). In judo, like other combat sports, athletes are grouped by
572 weight to ensure fair competition (Langan-Evans et al., 2011). Many adopt weight loss tactics
573 such as food and fluid restriction, intense exercises, saunas, and plastic clothing, as observed
574 in this study (Brito et al., 2012). However, these can lead to issues such as impaired immunity,
575 psychological shifts, and hormonal changes (Artioli et al., 2010). Research shows that 69% to
576 89% of judo competitors use such methods, with the rate influenced by their experience and
577 competitive level (Artioli et al., 2010). While weight control and management are clearly
578 crucial for fitting into their weight category, it is worth emphasizing that the participants
579 indicated they had not learned how to manage their weight properly, which requires further
580 support and education. This concern is not just relevant to their immediate performance but
581 also to their long-term wellbeing and should be addressed when establishing support systems
582 for judokas. These findings, especially regarding weight control and management, help address
583 the gap identified by Drew et al. (2019) in exploring specific challenges and aids associated

584 with the JST in individual sport. No participant specifically mentioned any mental health issues
585 related to weight management, such as eating disorders, despite finding it challenging.
586 However, these issues are not uncommon in combat sports, including judo, in particular among
587 female athletes (de Bruin & Oudejans, 2018; Vulpinari-Grajon & Mériaux-Scoffier, 2024).
588 Thus, greater focus and educational initiatives should be directed proactively towards athletes
589 to make them aware of how to effectively and healthily control their weight (Escobar-Molina
590 et al., 2015).

591 Many participants experienced injuries, particularly in their second year, with some still
592 in rehabilitation during their third year. Interestingly, male and female judokas reported
593 different recovery experiences. Male judokas emphasized recovery and maintaining confidence
594 without external pressures, while female judokas felt pressured by seniors and coaching staff,
595 feeling criticized for missing regular training. One female participant even mentioned being
596 urged to return to training before full recovery. While injuries are primarily physical in nature,
597 they carry significant emotional and social challenges for competitive athletes (Brewer, 2007).
598 The urge for athletes to return to their sport can come from coaches, teammates, and even the
599 athletes themselves (Podlog et al., 2011). This added pressure can intensify anxiety,
600 emphasizing the need for comprehensive strategies and shifts in athletic culture. In this regard,
601 Wadey et al., (2019) suggested that sport psychology professionals can guide injured athletes
602 to perceive their recovery not just as a return to previous levels of function, but as an avenue
603 for fostering positive transformation.

604 In light of these injuries and the associated anxieties, it is unsurprising that participants
605 emphasized the need for psychological support, especially given the pressure to excel in major
606 competitions in their third and fourth years. Sports injuries adversely affect athletes' physical
607 and psychological health, leading to symptoms such as anxiety, fear, and along with decreased
608 self-esteem (Reese et al., 2012), as evidenced in the findings from the present study. While

609 elite athletes might need varied support throughout their careers, such as financial, medical, or
610 academic support, the focus in years three and four was overwhelmingly on psychological
611 support, indicating its critical importance. This specific need should be prioritized by higher
612 education institutions hosting elite athletes and by sport governing bodies, leading to the
613 establishment of tailored support systems or programs. In this respect, researchers suggested
614 that integrating psychological support into established injury rehabilitation is considered
615 crucial to reduce adverse psychological impacts of sports injuries and facilitate athletes' return
616 to their training and competitions (Reese et al., 2012). While participants in this study identified
617 psychological support as their primary need, it is important to recognize that athletes who
618 receive adequate financial, social, and material support typically manage the JST more
619 effectively. As Drew et al. (2019) suggested, providing support across individual, external, and
620 cultural dimensions leads to more favorable results than relying on single-method approaches.

621 DC challenges, well-documented in prior literature (e.g., Stambulova & Wylleman,
622 2019), were similarly faced by participants in this study. However, cultural factors certainly
623 influenced these challenges within the Korean context. The Athletic Specialist System (ASS),
624 while promoting athletic potential and excellence (Park et al., 2012), appears to potentially
625 limit opportunities for athletes' academic growth in higher education, critical for post-sporting
626 life (Park et al., 2013; Torregrosa et al., 2015). Fortunately, participants did not perceive DC
627 management as overwhelming at a later time, largely due to their adaptation to academic
628 routines and the invaluable peer support they received. Considering the implications of ASS,
629 it is crucial for higher education institutions, especially sport-friendly ones (Morris et al., 2021),
630 to provide customized support, as suggested by participants, such as tailored induction and
631 skill-building sessions. The university attended by the participants can be classified as sport-
632 friendly university supporting elite athletes by offering academic flexibility, allowing them to
633 train and complete in their sporting environment, as defined by Morris et al. (2021). This

634 classification is because they could prioritize training and competition, with allowances for
635 having extensions and excused absences when competing. However, it should be noted that the
636 participants still identified a need for customized support to improve academic performance as
637 they did not fully commit to their studies during secondary school. Given that academic issues
638 can impact other developmental levels (Wylleman, 2019), such as athletic (e.g., distractions
639 from academic pressures during training) and psychological (e.g., additional stress and anxiety
640 due to academic commitments), it is significant to approach such support from a holistic
641 perspective. Particularly for Korean DC athletes living in an academically driven society that
642 highly emphasizes academic achievement (Phosalay et al., 2019), such educational support is
643 critical given the cultural context.

644 In terms of coping strategies (Stambulova, 2003), participants relied on social support
645 from parents, coaches, and peers, especially during injury phases, echoing findings that
646 emphasize the role of support in injury recovery (Drew et al., 2019). The findings in this study
647 present a challenge to HAC model (Wylleman, 2019), which suggests that parental support
648 lessens in young adulthood within the European context. The persistence of parental reliance
649 beyond adolescence observed in this study highlights the need for cultural considerations to be
650 incorporated into the model. Another key coping mechanism was focusing on performance and
651 utilizing their resilience, which became more pronounced in their subsequent years. Resilience,
652 besides being crucial for high-level athletic success (Fletcher & Sarkar, 2012), is recognized
653 for its mental health benefits (Schinke et al., 2018). The act of goal setting by coaches, aiming
654 to promote motivation, could also nurture resilience (Kegelaers & Wylleman, 2019). Thus, the
655 intertwining nature of these strategies should be considered in athlete development programs.
656 Coaches and sport psychologists should integrate these findings, understanding that each
657 dimension of practice can reciprocally influence others.

658 Regarding transition needs (Stambulova, 2003), as previously mentioned,
659 psychological support was identified as a key transition need due to its benefits for athletic
660 progress and success. As participants advanced to the upper years of university, it is crucial to
661 note that they became more determined and focused on their primary objectives, such as
662 winning medals at major competitions to secure their future careers. However, many also
663 expressed deep concerns about the risk of injuries and re-injuries, which could significantly
664 affect their competition performance. This is because they have experienced injuries with
665 adverse consequences both physically and psychologically (Reese et al., 2012), which led to
666 the fear and concerns about injuries when discussing transition needs. Past research has
667 documented that athletes nearing a return to sport frequently struggle with fears of re-injury
668 and doubts about regaining their pre-injury performance levels (e.g., Podlog et al., 2011).
669 Therefore, providing psychological support, as recommended by participants, becomes critical.
670 This need is not just restricted to times following injuries but also during periods of intense
671 pressure to perform and secure medals for their futures. Whilst reactive support is crucial for
672 helping athletes overcome the psychological challenges of injuries, it is also important to
673 proactively develop their psychological skills. This proactive approach enables athletes to
674 respond effectively and promptly to challenges associated with injuries. Such skill
675 development can be achieved through educational training (Ivarsson et al., 2013).

676 However, pressure and anxiety do not always play negative roles. There has been some
677 good practice in using pressure and anxiety to develop psychological skills and coping
678 strategies. For instance, Low et al. (2023) argued that being exposed to pressure in training
679 helps athletes adapt to stress in competitive situations. Their findings revealed that when
680 athletes are confronted with psychological challenges and the outcomes that follow, they learn
681 to manage and cope more effectively. They come to understand that facing pressure does not
682 always lead to poor performance. Based on these insights, it is important to include these

683 established practices in a specialized support system tailored for the specific group in question.
684 While the participants' determination and motivation to excel in athletic performance and
685 progress are impressive, it is crucial to consider the definition of DC excellence as "sustaining
686 a healthy, successful, and long-lasting career in sport combined with education and/or work"
687 (Stambulova et al., 2023, p. 6). The prevalent trend among participants of prioritizing sport
688 over education may not be conducive to their holistic growth and long-term preparation for life
689 after judo. Addressing this requires promoting DC and education that emphasizes the
690 importance of balancing both aspects.

691 **Applied Implications**

692 This study highlights the need for educational programs to address unique cultural
693 challenges specific to the Korean context, such as hierarchical team structures. It is crucial to
694 establish an educational program as a support system to recognize and utilize the roles of senior
695 athletes, who can serve as mentors and key components of a strong social network, rather than
696 only as teammates or someone who create stressors. To support athletes in managing the
697 challenges and pressures of competitive sports, it is significant to foster resilience and
698 psychological skills proactively and help them to utilize such internal resources when needed.
699 This can be achieved through targeted training and educational sessions designed to build these
700 critical competencies. Within these programs, it is also critical to teach athletes effective weight
701 management techniques to mitigate stress and health risks resulting from inappropriate
702 practices. Establishing comprehensive psychological support within such programs will assist
703 in addressing the pressures of injury recovery and performance anxiety.

704 In terms of DCs, there should be a focus on the longitudinal monitoring of athletes'
705 physical and psychological health. This approach will enable a better understanding of and
706 support for athletes as they transition through different stages of their athletic and academic

707 careers. Emphasizing the significance of balancing sports and education prepares athletes for
708 long-term success beyond their athletic careers. Tailoring induction and skill-building sessions
709 in educational institutions can further support DC paths, especially by considering cultural
710 factors that may impact both academic and athletic development.

711 **Limitations and Future Study Direction**

712 This study offers valuable insights into the experiences of Korean DC judokas during
713 the JST based on the ACT model (Stambulova, 2003). However, focusing only on participants
714 from one university limits the diversity of the insights of our study. This approach may not
715 comprehensively present the different challenges and coping strategies that Korean DC athletes
716 from different higher education institutions might have experienced. Recognizing this
717 limitation, it is critical for future research to include athletes from a range of universities. Such
718 expansion would broaden the relevance of our findings and enrich our understanding of the
719 Korean DC athletes' JST experience in different academic institutions and athletic disciplines.
720 While our research addresses gaps identified by Drew et al. (2019), which emphasized the
721 inclusion of a wider range of samples across different cultures and genders, there is still an
722 opportunity to examine experiences in other sport and cultural settings. Using a longitudinal
723 approach, our study points to the potential richness of further exploration in transitions,
724 especially during year 4 and immediately after graduation, offering a more comprehensive view
725 of athletes' developmental trajectories.

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730 **Data Availability Statement**

731 The data will be shared upon request only if it is ethically correct to do so, provided that this
732 does not violate the protection of human subjects, or any other valid ethical, privacy, or security
733 concerns.

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973 **Table 1**974 *Participant Information*

Focus Groups	Codes	Gender	Age	Career length
1	Judoka 1	Male	18	5
	Judoka 2	Male	18	8
	Judoka 3	Male	19	10
	Judoka 4	Male	18	10
2	Judoka 5	Female	18	7
	Judoka 6	Female	18	4
	Judoka 7	Female	19	6
	Judoka 8	Female	18	4
3	Judoka 9	Male	19	4
	Judoka 10	Male	19	11
	Judoka 11	Male	18	7
	Judoka 12	Male	18	9

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976 **Table 2**977 *Themes identified by Thematic Analysis*

Themes	Sub-themes
Multifaceted Challenges	<ul style="list-style-type: none"> ▪ Athletic Challenges (Training Demands, Weight Control, Injury and Recovery led to Performance Pressure) ▪ Psychosocial Challenges (Lifestyle Disruptions, Relationship Challenges) ▪ Dual Career (DC) Challenge (Challenges with Academic Commitments)
Coping Strategies	<ul style="list-style-type: none"> ▪ Internal Resources (Focusing on Performance Goals, Utilizing Resilience) ▪ External Resources (Seeking Social Support)
Perceived Needs of DC Athletes	<ul style="list-style-type: none"> ▪ Building Confidence
Prioritizing Sport over Study	<ul style="list-style-type: none"> ▪ Setting Explicit Goals ▪ Demonstrating Performance

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