2024

THE PSYCHOSOCIAL ASPECTS OF REST

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Digital Object Identifier: https://doi.org/10.13023/etd.2024.137

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THESIS

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science in the
College of Education
at the University of Kentucky

By

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2024

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ABSTRACT OF THESIS

THE PSYCHOSOCIAL ASPECTS OF REST

Past research in sport sciences has focused primarily on “rest” from a physical perspective, while giving limited focus to the psychosocial perspective (Eccles & Riley, 2014; Eccles et al., 2022). One major development on psychosocial rest emerged with the pioneering model introduced by Eccles and Kazmier (2019); however, further research is needed to test this proposed model with other sport/performance populations. Therefore, this study aimed to assess the model's generalizability and investigate the perceived frequency of psychosocial rest by athletes throughout their season. To accomplish this, 67 female university athletes completed an online survey comprised of questions representative of the initial model of rest in athletes (Eccles & Kazmier, 2019), including items related to general agreeance with the model and frequency of rest in-season compared to off-season. Results provided strong support for the initial model, though further evidentiary support is needed for the resting experience ‘variety’. Results also provided strong evidence that athlete frequency of rest is significantly less in-season compared to off-season. The study insights and implications on rest help to expand the initial model and benefit several areas of research and practice including recovery, burnout syndrome prevention, stress management, elite performance, and motor learning.

KEYWORDS: mental rest, sport science, recovery, elite performance, student-athletes

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04/22/2024

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CHAPTER 1. INTRODUCTION TO REST

1.1 What is Rest?

Most athletes know the importance of rest and how it can positively impact their sport experience. From a physical/physiological perspective, “rest” typically refers to the cessation of activity (Eccles & Riley, 2014); however, there is currently little understanding about what it means to rest from a psychosociological perspective. Some have offered a definition of rest as a temporary, restorative, and beneficial state involving the cessation of physical, mental, or spiritual work (Bernhofer, 2015; Kazmier, 2020), and though this includes psychosocial aspects it lacks a deeper understanding of how one would cease to work mentally and/or spiritually. Across multiple professional disciplines it has been shown that the term ‘rest’ is inconsistent and vague; a lack of consistency in the understanding that can lead to confusion between similar terms (e.g., rest, relaxation, sleep) and confusion from clients/patients around the intervention provided from practitioners (Bernhofer 2015). It's even been implied by some that rest requirements might not be the same for all, that the type of rest must fit the needs of the individual (Asp, 2015; Kazmier, 2020).

In contrast to previous studies, the current understanding of rest remains ambiguous and superficial. There lies a lack of specific and tangible answers to how we might define rest from a biopsychosocial perspective universally across professional disciplines *and* describe the resting experience to a degree that a lay person could understand and replicate in their own life. It’s possible this gap in the literature might be due to rest being seen by researchers and practitioners as a simple and self-explanatory concept, a concept that is thus undervalued at cultural and societal levels. This is

problematic because it then deemphasizes the need for descriptive analysis and further study on rest (Eccles et al., 2022).

Deemphasis can also come from overlooking rest, particularly in sport science, due to a natural tendency to focus on physical athletic actions because they are exciting and fundamental to sport (Podlog & Eklund, 2005, cited in Eccles et al., 2022), whereas traditionally rest is considered to involve inactivity and might be of little interest. Additionally, outcomes of competitions are direct consequences of physical actions during said competitions; by comparison, rest is typically experienced away from competition in both time and space and thus it might seem less apparent that outcomes of competition are related to engagement in the resting experience. Rest might even be seen as a less tangible concept and more private experience, compared to physical actions which tend to be easier to identify, define, and measure (Eccles et al., 2022).

Eccles and colleagues (2022) recognized that rest was being overlooked and found that rest was never the primary interest nor directly studied in sport psychology research. They identified the few sport psychology topic areas of research that refer to rest at least occasionally or implicitly: recovery, motor skill learning, and expert performance. The authors compare literature from these related research fields to create a new area of research focused on wakeful rest in athletes. Out of this new research area comes one key study recently published that has attempted to address the paucity in research and emphasize the understanding of how athletes rest, Eccles and Kazmier's initial model of rest in athletes (2019).

1.2 How Do Athletes Rest?

In 2019, researchers Eccles and Kazmier published a study in which they designed an initial descriptive model for the psychological rest in athletes and provided a better overall understanding of the subject. In their results, the authors propose their initial descriptive model of rest in which being mentally well rested is stated as 'a psychological state involving feeling fresh, and valuing, being motivating toward, and enjoying one's sport' (p. 90). The athletes interviewed considered the resting process to include both sleep and wakeful resting. The conceptualization of wakeful resting included "(a) a reduction in, or "break from" psychological experiences associated with sport participation that are deleterious to feeling well rested, which [they] term *deleterious psychological experiences*; and, for each such experience, (b) an increase in a contrasting psychological experience that contributes to feeling well rested, which [they] term a *resting experience*" (p. 93).

The athletes' conceptualizations of wakeful resting experiences include: 1) not thinking about one's sport, 2) reduction in effortful thinking, 3) assuming internal control, 4) variety, 5) reduction in stress from performance demands, 6) reduction in work-related stress, and 7) reduction in frustration associated with personal opportunity costs (Eccles & Kazmier, 2019). The authors describe each of the rest-contrasting deleterious experiences and outline behavioral, social, and environmental conditions that facilitate and debilitate the resting experience:

> **Deleterious psychological experience (DPE) 1:** *Always thinking about one's sport.* Athletes tend to be constantly engaged in sport-related activities (e.g., training, meal preparation, team social activities) which can be mentally fatiguing and lead to reduced motivation to engage in their sport. Athletes also tend to place

a high level of importance on their sport due to high investment or performance pressure which can cause feelings of anxiety, an experience that is mentally effortful. Because always thinking about one's sport is mentally fatiguing, athletes also require a break from sustained effortful thinking. The resting experiences associated with this DPE are a reduction in thinking about one's sport (i.e., "switching off") and a reduction in effortful thinking generally.

DPE 2: *Being externally controlled.* Athletes feel their lives in-season are controlled by a relatively fixed training schedule and program expectations. This is unfavorable because athletes want to have time for themselves and feel they have control over their lives. External control as a consequence reduces motivation to engage in their sport. External control is also unfavorable because athletes have a reduced ability to regulate their resting when they feel they need it. The resting experience associated with this DPE is assuming control over one's life (internal control).

DPE 3: *Tedium.* Over the course of an athletic season, athletes feel a lack of variety; they often spend their time following the same schedules, in the same physical spaces, with the same people. The tedious nature of the athletes' experience can reduce motivation to engage in their program. The resting experience associated with this DPE is experiencing variety in routines, and social/physical environments.

DPE 4: *Stress from performance demands.* Simply put, training and competition aspects associated with high-level sport programs are mentally demanding. The athletic experience at the elite level requires high concentration, which is

cognitively demanding, and there can be associated pressures to perform, which is emotionally demanding. The resting experience associated with this DPE is a reduction in the mental demands of training and competition, which is generally facilitated by a reduction in training and competition.

DPE 5: *Stress and frustration associated with work-related and personal non-sport opportunity costs.* Commitments as an athlete often lead to the feeling of not being able to pay enough attention to life outside of sport. Often, athletes have work activities to tend to outside of their sport, such as studying or paid work, and feel stressed when they are unable to attend to this work. Athletes also want to engage in personal activities, like relationships and hobbies, and feel frustrated when they are unable to experience these activities due to sport commitments. The resting experiences associated with this DPE are a reduction of stress associated with work-related opportunity costs and a reduction of frustration associated with personal opportunity costs.

Arguably the most important component of the initial model of rest in athletes is "not thinking about one's sport". If we accept the definition of rest as that of physical inactivity, the problem is that this does not guarantee that one is able to cease psychological activity (Eccles et al., 2022). Athletes can experience anxiety during competition, but there are also a wide range of sport-related stressors that can present themselves to athletes (e.g., environmental, personal, leadership, and team issues) that could lead them to experience anxiety *outside* of training and competition spaces, including on rest days (Woodman & Hardy, 2001). Based on this evidence, we might start to consider and conceptualize rest not just as physical inactivity, but as

psychological inactivity as well. This idea connects to the concepts of psychological detachment (i.e., mentally "switching off") and the Stressor Detachment Model (i.e., harder to "switch off" the higher the current work stress) (Sonnentag & Fritz, 2007, 2015), which provides evidence to the central idea that resting is a much more complex endeavor than previously understood.

1.3 Rest and Psychological Detachment

Psychological detachment is a crucial recovery experience that means one is mentally disengaged from work (i.e., mentally switching off) during time off from their job-related activities (Sonnentag & Fritz, 2007). Psychological detachment is a concept usually associated with research and practice within organizational psychology in which they've sought to understand not just the meaning of, but the underlying mechanisms of psychological detachment (e.g., what are people failing to detach from) (Smit, 2015).

A lack of psychological detachment has been found to be a partial mediator linking work stressors and strains; a finding seen from studying what is known as the Stressor-Detachment Model, which suggests essentially that when work stressors are high, one finds it difficult to psychologically detach (Sonnentag & Fritz, 2015). In the field of sport and exercise psychology, there has been evidence to show that mental detachment was negatively associated with injury and positively associated with mental energy (Balk et. al, 2019) and evidence that there is a positive relationship between physical detachment and physical recovery as well as a positive relationship between emotional detachment and cognitive/emotional recovery (Balk et. al, 2017). This shows that detachment strategies might be effective recovery strategies and provides support for the importance of psychological detachment as a component of rest in athletes. However,

these examples lack insight on *how* athletes might psychologically detach and experience wakeful rest in this way.

The recent research on psychological detachment only scratches the surface of what might constitute rest among athletes and other performers. There is still work to be done on identifying what *athletes* are failing to detach from, what intervention(s) or environmental conditions better afford detachment, and how all this connects with overall understanding of resting experiences. Our current understanding of rest from a biopsychosocial perspective might come with a certain level of uncertainty and lack of evidentiary support, yet we also see in research and practice that there is no shortage of reference to the *importance* of rest and the benefits rest can provide to one's performance and recovery.

1.4 Importance and Benefits of Rest in Training and Competition

Rest is integral in sport, performance, and exercise domains because of the positive impact it can have, and reversely the negative impact poor rest can have. Eccles and Riley (2014) have outlined the functions rest serves and note that effects are dependent on the length of rest and the length and type of event in which rest is included. In this way, rest can be split into two main categories based on the timing of implementation: rest periods within the event (usually in seconds or minutes) and rest periods in between events (usually in hours or days).

For rest periods within the event (e.g., practice, competition, exercise session): rest serves to reduce physical fatigue through energy replenishment and waste product removal, reduce cognitive fatigue through replenishment of attentional capacity, and enhance the learning of movement skills via distributed practice (Eccles & Riley, 2014).

For example, Freitas de Salles et al. (2009) performed a review of literature on physical responses to resistance training following different rest periods between training sets. The authors found rest periods to be beneficial within training, but optimal duration of rest periods between sets is dependent on an individual's training goals and their sport. The authors also found that when training for muscular strength, rest intervals of three to five minutes between sets is more effective, whereas when training for muscular hypertrophy and endurance, shorter rest intervals are more effective (Freitas de Salles et al., 2009; Kazmier, 2020).

For rest periods in between events (e.g., off-days, deload weeks): rest enhances energy replenishment greater than within the event rest, allows for supercompensation after overload, facilitates learning of new motor skills through enhancement of memory consolidation, and helps reverse decrements in motivation resulting from extended time commitments and immersion in the sport environment (Eccles & Riley, 2014). For example, Dewar and colleagues (2014) published an article with aim to test the impact of wakeful rest directly after learning compared to a short period of sensory stimulation on long-term memory. Wakeful rest, typically defined as "a period of time spent engaged in little cognitive and physical activity while awake" (Dewar et al., 2014, cited in Eccles et al., 2022, p. 5), has been suggested to provide ideal conditions for mental rehearsal and consolidation of memories. Results from Dewar and colleagues (2014) provided evidence that wakeful rest contributed to a boost in memory for both free recall and recognition, which was maintained for at least 7 days.

The benefits of rest over an extended period are also considerable. Generally, periods of training are subdivided into various levels of planning that span from long-

term, multi-year planning to individual workouts contained to a specific day of training (Gregory & Erin Haff, 2011). A quadrennial training plan is commonly used by professionals for athlete preparation. This plan is sequenced into progressively smaller timeframes starting with the of the annual year (called the macrocycle) which is split into three different phases: preparatory, competition, and transitional phases. It is during the transitional phase (usually lasting 4-6 weeks) that training load is significantly reduced and there is minimal emphasis on sport-specific skills; it is understood that this phase is used to refresh one both mentally and physically and allow them to exercise at a reduced training load (Gregory & Erin Haff, 2011). Rest in the transitional phase sometimes involves 'active rest' which "involves engagement in activities designed to help the performer maintain a base of physical fitness and movement skill while imposing a low training load" (Eccles & Riley, 2014, pp. 599). Resting in this phase of training has the same benefits of rest periods between events described above including the reversal of decrements in motivation which, in the case of an annual training plan, may follow the preparation and competition phases.

Rest is clearly a useful tool for athletes if they want to optimize their performance. Rest is utilized at several different time points in the training and competition process and for different periods of length in order to supplement improvement for the athlete, both physically and mentally. In this way, rest could be considered a key component of recovery, though rest is rarely the main focus on research of the topics of recovery.

1.5 Rest and Recovery

Rest is a term referred to frequently within recovery literature, though it is typically associated with a physical state of inactivity (Kellmann et al., 2018). However, in a consensus statement on recovery and performance in sport, Kellmann and colleagues (2018) include insight on psychosocial aspects of recovery and how rest plays a role. Recovery is regarded as a restorative process over time in which one combats fatigue (considered a condition of augmented tiredness due to physical and mental effort) and reestablishes a biopsychosocial balance in resources, of which rest is an included passive method for aiding in recovery. Overall, it should be considered though that athletes can be at their most psychologically active when resting physically; when given the time and space to be apart from sporting activities, athletes might unknowingly be given the opportunity to worry more about their performance outcomes (whether negative or positive) which could be mentally and emotionally fatiguing (Eccles et al., 2022).

Fatigue is not always detrimental to performance outcomes and can be facilitative, when coupled with comprehensive recovery. This describes a phenomenon called functional overreaching, the short-term decrement in performance sans maladaptive consequences in training (Kellmann et. Al, 2018). However, when coupled with a continuous lack of recovery, functional overreaching could lead someone to a state of nonfunctional overreaching, characterized as training-specific negative psychological and hormonal alterations leading to performance decrements (Meeusen et al., 2013). Insufficient recovery and nonfunctional overreaching are generally precursors to overtraining syndrome (Kellmann et al., 2018) and burnout syndrome (Eklund & DeFreese, 2015).

Eccles and Riley (2014) characterize overtraining syndrome as a "long-term decrement in performance capacity restored only following weeks or months of rest", and burnout syndrome as a "long-lasting experience of emotional and physical exhaustion, sport devaluation, and reduced sense of accomplishment" (p. 600). Common symptoms of overtraining include physical fatigue, mental exhaustion, and sleep disturbances; burnout symptoms include mental and physical exhaustion, loss of interest, and increased anxiety (Weinberg & Gould, 2019). Rest is considered one of the most effective means for prevention and treatment of overtraining and burnout syndromes and their symptoms (DeFreese et al., 2021; Eccles et al., 2022; Kellmann et al., 2018; Meeusen et al., 2006). It stands to reason then that chronic failure to rest could lead to physical and psychological problems that impede performance, slow recovery, lower motivation, and decrease one's sense of mental well-being, such as with overtraining and burnout syndromes (Eccles & Riley, 2014).

There is strong evidence to support the positive impact rest can have to the recovery process, both physically and psychologically, acutely and over time. As we start to better understand the significance of rest and how we rest, there becomes a growing importance for athletes and practitioners to understand how we rest *more.*

1.6 How Do We Rest More?

Shortly after the publication of the initial model from Eccles and Kazmier (2019), Eccles and colleagues published a paper, titled *How to help athletes get the mental rest needed to perform well and stay healthy* (2021), in which they took the empirical study of the initial model and structured the information into a practical, application-based, guide. The authors present 'wakeful rest' as a way to achieve mental rest and categorize this

type of rest into six psychological experiences, based on the 2019 initial model from Eccles and Kazmier, which they call the 'special 6'. The 'special 6' wakeful resting experiences include: 1) getting a break from always thinking about one's sport, 2) getting a break from any kind of effortful thinking, 3) getting a break from feeling life is controlled by sport, 4) getting a break from the monotony of the daily routine, 5) being able to catch up on important work tasks, and 6) being able to have a personal life outside of my sport.

The authors additionally provide some strategies for obtaining the 'special 6' wakeful resting experiences, which could be used as a guide for practitioners in developing personalized interventions for athletes (Eccles et al., 2021). One all-encompassing example of a wakeful resting experience is watching non-sport television alone in our room, in bed with our feet up (Eccles and Kazmier, 2019; cited in Eccles et al., 2022). The productive nature of this activity is that it provides the key element to physical rest (i.e. physical inactivity) *and* includes elements of psychosocial rest by encompassing several of the 'special 6' wakeful resting experiences. The athletes gain internal control because the activity is something chosen by them (i.e., they choose what to watch and when). The athlete is limiting reducing their cognitive load because television by nature (depending on the programming) does not generally require effortful thinking. The athletes are also not thinking about their sport because they are watching something non-sport related, and they are not in an environment that reminds them of their sport.

With the recent insight into the athlete's experience with rest, some practitioner's tools have been developed to aid in providing intervention protocols for rest and

emphasize its importance. Eccles et al. (2021) designed the Wakeful Resting Experiences Questionnaire based on the 'special 6' resting experiences and also designed the Current Mental Rest Level Measure tool to be used for identifying how mentally rested one feels. Eccles et al. (2022, p. 20) include in their literature review a table of questions athletes can ask themselves to help achieve mental rest outside of training and competition (e.g., "Are you 'doing it different'?... Have you planned to spend some time with different people and following different than normal routines?").

1.7 Summary and Significance

While Eccles and Kazmier's initial model of rest in athletes (2019) offers a great starting point for the initial conceptualization of rest, further research in this area is needed to test the validity and generalizability of the proposed model with other sport and performance populations. The population sample used by Eccles and Kazmier (2019) was a collegiate field hockey team in the United Kingdom, which provides opportunity for additional investigations to determine if their model can be generalized to athletes in other collegiate sports, professional and recreational athletes, athletes in other countries (like the US), and to other performance populations like in the tactical and medical fields. Consequently, the proposed study aims to investigate to what degree Eccles and Kazmier's proposed model of rest is generalizable to other sport and performance populations. It is hoped that by validating the model for use with additional athlete populations/settings, we can deepen our understanding of this important topic and develop interventions to support and encourage restful experience in athletes.

Additionally, Eccles and Kazmier's model (2019) provides athlete's perceptions of rest and wakeful resting experiences only in the snapshot of time during with the

athlete interviews took place. Insight was gained into some differences in how one is able to achieve rest in the in-season versus the off-season. However, this insight on rest is general information and does not provide specific differences in the frequency at which athletes perceive their ability to achieve different wakeful resting experiences and activities. Thus, the proposed study aims to investigate the perceived frequency of psychosocial rest by athletes in their in-season compared to their off-season. It is hoped that by understanding the frequency at different points in an athlete's season, we can deepen our understanding on the unforeseen complexities of the initial model of rest in athletes and revise accordingly.

Overall, expanding on this area of research would help to develop interventions for implementing effective rest protocols and programs. This could be beneficial to several areas of application and research such as: Injury recovery/prevention, burnout/overtraining prevention, optimizing recovery from physiological and psychological stress, optimizing work performance (e.g., tactical populations, medical populations), optimize sport performance and recovery, and in increasing retention in learning of cognitive and motor skills.

CHAPTER 2. METHODOLOGY

2.1 Participants

Participants were female university athletes from various institutions in different regions of the United States. Approximately 35 athletes aged 18-24 years old were recruited for this study. Female athletes from a variety of sports were considered; for example, basketball, softball, swimming/diving, track & field, cross country, soccer, golf, tennis, rifle, and cheerleading/STUNT.

Athletes were recruited by identifying athlete contacts from the investigators. These athlete contacts were sent a cover letter via email that provides directions for completing the survey and explains the importance of the study. Athletes were also asked to forward the survey to other athletes they know who were eligible for the study. This snowballing sampling technique allowed for a simple and cost-effective recruitment strategy. Athletes were also recruited through a word-of-mouth sampling technique by emailing the survey cover letter to different professional contacts for them to send out to eligible athletes of whom they knew.

2.2 Instruments

The study used an electronic questionnaire as its key descriptive research method, which was used to gather the general consensus on rest and resting experiences in the collegiate athlete population in the United States. Since the study focused on a novel research topic, with only a few studies of direct research, the aim was to gather general information on rest in the collegiate athletic population in order to discover insight into appropriate next steps in research and practice. The survey first asked for disclosure of

general background information to include confirmation of participation in a women's sport, age, year in school, university sport, region of the US in which their university resides, and whether they are currently in-season or in the off-season of their principal sport. Then, one open-ended question was asked to prompt unbiased insight on athlete perceptions of rest, which read "What does 'rest' mean to you as a student-athlete?". The remaining portion of the survey was structured with answers on a 9-point Likert scale format.

The survey used a series of closed questions that were representative of the proposed six wakeful resting experiences (Eccles et al., 2021), constituents of measuring rest (Eccles et al., 2021), and ideas for obtaining rest outside of training (Eccles et al., 2022), all of which are concepts based on the initial proposed model of rest in athletes from Eccles and Kazmier (2019). Additionally, the survey questions are directly comparable to proposed instruments for athlete intervention practices related to optimizing rest experiences: the Current Mental Rest Level Measure and Wakeful Resting Experiences Questionnaire (Eccles et al. 2021) and a table of sample self-assessment questions for athletes (Eccles et al., 2022). The survey questions were divided into three sections: 1) general level of agreeance on psychosocial rest, 2) frequency of rest in-season, and 3) frequency of rest in the off-season.

In section 1, the aim of the questions was to provide validity to the initial model by understanding the degree to which the US collegiate athletic population agrees with said model using a series of closed questions in the form of a 9-point Likert-type scale (e.g., 1 Strongly Disagree, 9 Strongly Agree). Because of the questions direct comparison to proposed intervention instruments, section 1 of the questionnaire then also aimed to

provide validity for these instruments for future practice and reliability for how they might be used as measurement tools for professionals. In sections 2 and 3, the aim of the questions were to understand the frequency at which athletes are able to achieve certain restful experiences and participate in restful activities, either during their in-season or off-season. The closed questions in these sections were the same as in section 1, now using a 9-point Likert-scale used to assign estimations of frequency (e.g., 1 Never, 9 Always). A copy of the survey questions can be found in Appendix B of this proposal.

2.3 Procedure

Ethical approval was obtained from the IRB and all participants who received the online survey were presented with an informed consent first, which had to be signed in order to proceed with the completion of the survey. To obtain informed consent, participants clicked “yes” or “no”. If participants do not consent to completing the survey, they were routed to the end of the survey. Similarly, if participants answered that they participate in a men’s sport or answered they were 17 years old or younger, they were routed to the end of the survey as they did not qualify for the completion of the survey. The survey was sent to participants via email or sent to professional contacts via email to forward to potential participants and administered electronically using Qualtrics. The above-mentioned three sections in the survey were presented to each participant in randomized order to limit potential order effects. Participants were informed that their responses remain anonymous and ethically there was no penalty for a non-response.

2.4 Data Analysis

For the transcribed open-ended question on perception of rest, content analysis was utilized because it is best used to make valid inferences from text, notably for purposes such as coding open-ended questions, describing trends in communication content, and reflecting cultural patterns of groups (Weber, 1990). Within the content analysis, the investigators identified key concepts and categorized them by shared characteristics. The investigators built upon and modified concepts throughout the process of data analysis and compared to the initial model by Eccles and Kazmier (2019). The investigators supplemented concept identification with informal note taking, memo writing, and creation of concept outlines and hierarchies to help further the understanding of the data. Additionally, investigators utilized insight from a professional colleague outside of the research team, with limited knowledge previously on the research subject, for an interrater reliability exercise. The exercise consisted of the following: the colleague was presented with 30% of the raw transcribed data, each of the identified sub-themes, and asked to code the data using those sub-themes. Any discrepancies with the research team were then discussed. Additionally, the colleague was instructed to combine the sub-themes into major themes, which was then indirectly compared to the research team's interpretations and further discussed.

There was no previous study utilizing the investigators methods, and thus there is no previous data set to statistically compare for significance. Therefore, descriptive statistics were used to analyze and present the data gathered from section 1 of the survey questions. The data from section 1 was then indirectly compared to the initial model of psychological rest in athletes (Eccles & Kazmier, 2019). Paired sample *t* test was utilized

to statistically analyze and present the data from sections 2 and 3 of the survey questions. Paired sample *t* test is a type of Independent *t* test, which is a testing method most frequently used when determining whether two sample means differ reliably from each other (Thomas et al., 2015). The investigators then directly compared in-season to off-season responses for each question on resting experiences and activities, and presented if there was a statistically significant difference between the frequency of rest in these two time-phases of the athletic season.

CHAPTER 3. RESULTS

3.1 Participant Descriptives

A total of 67 female collegiate athletes volunteered to participate in this study. Of those, 65 participants provided complete responses to the open-ended question and were included in the qualitative analysis. For the quantitative analysis of the Likert-scale questions, 61 participants completed the scale and were included in the analysis. Participant age ranged from 18 to 23 years old, with 57.38% being between the ages of 20 to 21. Participants varied in their current year in university, with the majority (65.91%) reporting that they were in their 3rd or 4th year. A range of different sports were represented in the responses and are listed here in descending order: Cheer/Stunt (22.95% of responses), Track & Field (22.95%), Swim/Dive (16.39%), Softball (8.2%), Volleyball (6.56%), Dance (6.56%), Soccer (4.92%), Field Hockey (3.28%), Basketball (1.64%), Golf (1.64%), Beach Volleyball (1.64%), Lacrosse (1.64%), and dual sport of Track & Field and Volleyball (1.64%). All major US regions were represented: Northeast (21.31%), Southeast (37.7%), Midwest (32.79%), Southwest (6.56%), and West (1.64%). Participants were asked whether they were currently in their sport in-season or off-season; 78.7% of participants reported being in-season and 21.3% off-season.

3.2 Defining Rest

A content analysis of the responses from the open-ended question, which asked participants to describe what rest means to them as a student-athlete, resulted in a total of 189 meaning units. Out of the 65 athlete responses, some resulted in as little as one meaning unit while others resulted in as much as seven meaning units per response. For

example, one athlete wrote that rest is “A day off” while another wrote “As a student-athlete rest means lots of different things to me. There is physical, mental, and spiritual rest. Physical rest means getting adequate sleep and treatment for my muscles and body to recover. It also means putting good things into my body so that my body can rest its best. Mental rest would be taking time away from your sport to relax completely away from the mental tax that sports can bring. It also can mean healthily visualizing your sport. Spiritual rest can mean something different for everyone depending on where they lie spiritually.” The 185 meaning units were organized into twenty-five (25) sub-themes, and then further into four (4) major themes. For a visual representation of sub-themes and major themes, refer to Table 1.

The first theme, Restorative Processes, included anything that mentioned activities or concepts that would help the athlete feel rejuvenated or bring them back to a baseline homeostasis, either physically or mentally. Included responses mostly mentioned aspects of recovery and/or sleep and utilized terminology like “recharge”. For example, one athlete wrote “Rest to me means taking time for yourself to recover and heal your mind and body from the work it has done” and another wrote “Rest is the time that my body gets to recover in between practices. This is more than just sleeping and can include active recovery practices and yoga.”

The second theme, Limited Stress & Effort, included mentions of an overall reduction in mental and physical effort, feelings of stress and anxiety, and obligations or expectations (sport related or otherwise), and an increase in relaxed and mindful states. For example, one athlete wrote “[Rest is] not throwing, not lifting, not doing homework or cleaning, nothing, laying down on my bed (or the floor) and not moving. The less

amount of things I have to worry about like assignments or just stress in general also helps the rest."

The third theme, Personal Wellness & Endeavors, included responses that mentioned time to complete tasks that are unrelated to sport (e.g., running errands or doing schoolwork) and time to pursue other interests and activities that are also unrelated to sport. For example, one athlete wrote "Rest is the opportunity to engage in other activities besides the sport you have been participating in for the majority of your life. Gives the opportunity to be a true student and person beyond athletics." Another athlete wrote "'Rest' to me means taking care of myself mentally and physically…no social media after a certain time, taking a nice hot shower, or even just getting to be early."

The fourth theme, Break from Sport, included descriptions of rest as a time to step away from sport and the team, to not have practice, to take a momentary mental and/or physical pause. For example, one athlete wrote that rest is "A day off from practice; not having to physically practice as a team" and another specifically mentioned mental rest, which they wrote that "Mental rest would be taking time away from your sport…away from the mental tax that sports can bring."

3.3 General Agreeance with Initial Model

The degree to which the athlete participants agreed with proposed descriptions of being well-rested and what activities constitute restful experiences was determined through descriptive statistics. When considering proposed definitions of what it means to be "well-rested", most participants agreed to the provided descriptions. 85.5% of participants somewhat agreed to strongly agreed that rest constitutes "feeling 'fresh'",

"feeling highly motivated to engage in my sport" (81.8%), "enjoying my sport very much" (78.2%), "applying a lot of effort to my sport" (74.5%), and "valuing and appreciating my sport" (70.9%).

While the majority were in agreeance with all the descriptions of rest, there was more discrepancy in level of agreeance as to what constitutes a restful experience. The highest level of agreeance was in the restful experience of "feeling free from obligations/commitments (e.g., from sport, studying, a job) so you can do exactly what you want" (87.3% of participants somewhat agreed to strongly agreed), followed by "spending time alone or with close friends or family with whom you can be yourself" (85.2%) and "spending time in a relaxed venue (e.g., bed, room, home, café) with few distractions (85.2%). The lowest level of agreeance was in the restful experience of "spending time without viewing media and TV related to my sport" (34.6% of participants agree), followed by "spending time following different (i.e., from normal) routines and travel routes" (35.2%). For a visual representation of general agreeance on descriptions of restful experiences, refer to Table 2. Independent t-test was performed on the sample to test for difference in reported level of agreeance with descriptions of being well rested and restful experiences compared between athletes currently in their in-season versus in off-season; results showed no significant difference between the groups.

3.4 In-season v. Off-season Comparison

For sections 2 and 3 of the survey, paired samples t-tests were used to determine significant differences in athletes' reported frequency of participation in different suggested resting experiences. Analysis of data revealed significant differences in the

frequencies with which athletes are able to participate in resting experiences in their in-season compared to their off-season across all but one item (viewing media and tv related to their sport). For more information on the in-season and off-season comparison, refer to Table 3.

Table 1 Analysis from responses to question ‘what does rest mean to you as a student-athlete?’

Content Analysis

	Major-themes	Sub-themes (# meanining units)	% of Meaning Unit Total
Absence or Reduction	Break from Sport	no practice (15)	12.2%
		time away from team (1)	
		mental or physical break from sport (3)	
		"step away" (3)	
		break between reps (1)	
	Limited Stress & Effort	low stress (2)	34.9%
		low feelings of anxiety/pressure (2)	
		no obligations/requirements/expectations (16)	
		relax (12)	
		mental peace & presence (2)	
		low physical effort (24)	
		low mental effort (8)	
Presence or Increase	Restorative Processes	time *with* myself (1)	36.5%
		time with family/friends (2)	
		sleep (17)	
		recovery (21)	
		restore previous energy state (10)	
		nutrition (5)	
		active rest (13)	
	Personal Wellness & Endeavors	time *for* myself (9)	16.4%
		out-of-sport tasks (6)	
		self-care (6)	
		pursue other interests/identities (6)	
		time for appreciation (1)	
		spiritual practices (3)	

Table 2 General agreeance on descriptions of restful experiences

General Agreeance on Descriptions of Restful Experiences

Descriptions of restful experiences	Participants who somewhat agree to strongly agree
Spending time thinking about something other than your sport	63.6%
Getting a break from doing things that require you to "think hard"	69.1%
Feeling free from obligations/commitments (e.g., from sport, studying, a job) so you can do exactly what you want	87.3%
Doing something different from your everyday routine	36.4%
Catching up on work tasks that need doing (e.g., paperwork, chores, study)	45.5%
Engaging in personal activities and areas of life outside of your sport (e.g., family, friends, relationships, & hobbies)	83.6%
Spending time with people who are not your teammates or coaches	51.9%
Spending time in venues other than your training facility, where you can't see your playbook, sport equipment, and apparel	65.4%
Spending time without viewing media and TV related to my sport	34.6%
Spending time alone or with close friends or family with whom you can be yourself	85.2%
Spending time doing activities that are fun and mean you do not need to think very hard (e.g., a favorite TV show)	83.3%
Spending time in a relaxed venue (e.g., bed, room, home, cafe) with few distractions	85.2%
Spending time doing exactly what you want, where you don't need to consider others' needs	81.5%
Spending time when you can indulge the "real you"	83.3%
Spending time feeling fine to do nothing "useful" at all	74.1%
Spending time following different (i.e., from normal) routines and travel routes	35.2%
Spending time with different people than usual	37.0%
Spending time eating different food than usual	38.9%
Spending time in different venues and locations than usual	44.4%

Table 3 In-season v. off-season comparison on frequency of rest

In-Season v. Off-Season Comparison

In your free time, how often are you able to achieve each of these restful experiences?	In-season Mean	Off-season Mean	t	p-value
Spending time thinking about something other than your sport	3.92	5.15	-4.734	<0.001
Getting a break from doing things that require you to "think hard"	3.38	4.98	-6.370	<0.001
Feeling free from obligations/commitments (e.g., from sport, studying, a job) so you can do exactly what you want	2.81	4.65	-5.778	<0.001
Doing something different from your everyday routine	2.90	5.33	-8.852	<0.001
Catching up on work tasks that need doing (e.g., paperwork, chores, study)	4.46	5.90	-6.008	<0.001
Engaging in personal activities and areas of life outside of your sport (e.g., family, friends, relationships, & hobbies)	3.94	6.12	-6.467	<0.001
Spending time with people who are not your teammates or coaches	3.51	5.67	-6.574	<0.001
Spending time in venues other than your training facility, where you can't see your playbook, sport equipment, and apparel	3.92	5.80	-6.356	<0.001
Spending time viewing media and TV related to my sport	4.86	5.39	-1.682	0.099*
Spending time alone or with close friends or family with whom you can be yourself	4.14	6.53	-7.577	<0.001
Spending time doing activities that are fun and mean you do not need to think very hard (e.g., a favorite TV show)	4.41	6.47	-7.731	<0.001
Spending time in a relaxed venue (e.g., bed, room, home, cafe) with few distractions	4.24	6.33	-8.114	<0.001
Spending time doing exactly what you want, where are you don't need to consider others' needs	3.49	5.84	-9.232	<0.001
Spending time when you can indulge the "real you"	4.00	6.22	-7.368	<0.001
Spending time feeling fine to do nothing "useful" at all	3.06	5.78	-7.815	<0.001
Spending time following different routines (i.e., from normal) and travel routes	2.78	5.06	-7.638	<0.001
Spending time with different people than usual	3.10	5.37	-7.149	<0.001
Spending time eating different food than usual	3.37	5.29	-5.953	<0.001
Spending time in different venues and locations than usual	3.14	5.14	-6.718	<0.001

* Notes statistical insignificance

CHAPTER 4. DISCUSSION

This study aimed to investigate the degree to which the initial model of rest in athletes was generalizable to other sport and performance populations. Eccles and Kazmier's (2019) proposed model was based on a sample population of a collegiate field hockey team in the United Kingdom, thus there was a need to investigate if the initial model of rest was agreed upon by collegiate athletes in the United States and of different sports. This study also aimed to investigate the perceived frequency of psychosocial rest by athletes in their in-season compared to their off-season. Eccles and Kazmier (2019) initially gained insight into differences in achieving rest in-season compared to off-season, however no insight was provided on specific differences in the *frequency* at which athletes perceive their ability to achieve different wakeful resting experiences and activities.

To fulfill the first aim of this study (to further validate the original model) the data collected was compared indirectly to the initial model of rest in athletes (Eccles & Kazmier, 2019). For context, the initial model consisted of approximately five components. **1)** Athletes conceive that feeling rested involves physical and mental aspects, which are considered independent of each other. **2)** Being mentally well rested is considered "a psychological state involving feeling fresh, and valuing, being motivating toward, and enjoying one's sport" (p. 90). **3)** One's level of rest is enhanced by engaging in resting processes involving sleep and resting while awake (i.e., wakeful resting). Wakeful resting is conceptualized as both "(a) a reduction in…psychological experiences associated with sport participation that are deleterious to feeling well rested…and, for each such experience, (b) an increase in a contrasting psychological experience that

contributes to feeling well rested" (p. 93). **4)** Wakeful resting involves seven resting experiences that facilitates feeling well rested: reduction in thinking about one's sport (RE 1), reduction in effortful thinking generally (RE 2), assuming internal control (RE 3), variety (RE 4), reduction in stress from performance demands (RE 5), reduction in stress associated with work-related opportunity costs (RE 6), and reduction in frustration associated with personal opportunity costs (RE 7). **5)** Opportunities to experience wakeful resting are different in the in-season compared to the off-season, with greater perceived ability to obtain all resting experiences in the off-season.

4.1 Biopsychosocial Rest

Part one of the initial model proposes that feeling rested involves physical and mental aspects, which are considered independent of each other. In review of the current findings, there is strong evidence to support this claim. For example, the content analysis showed subthemes involving physical aspects like exerting low physical effort and mental aspects like rest involving feelings of low stress and anxiety from obligations, requirements, and expectations. Additionally, there were some sub-themes that arguably encapsulate both physical and mental aspects, such as the sub-theme 'Relax'. While the responses support the model's designation between physical and mental rest, responses also indicated that there were additional components not discussed in the original model.

This current study shows evidence of rest containing additional components beyond physical and mental aspects. Based on athlete responses in the content analysis, there is some evidence to suggest that there may be a social component to rest. Though the specifics of 'social rest' remain unclear. For example, some athletes noted that to

them rest was time spent with friends and/or family, while another athlete noted that to them rest was best spent alone. Additionally, aspects of nutrition-related rest were found in the content analysis, though the specifics of this remain unclear as well. For example, some athletes noted that rest is experienced in part by a focus on "good" food and eating healthy, while another noted that rest is a time when they don't have to stress about what they're eating. The content analysis also provides evidence for a spiritual component to rest, though the specifics of this aspect also remain unclear. It is possible that one's spiritual practices could provide opportunity for them to feel mentally well rested but could also provide a feeling of rest on some deeper emotional level. Future research could explore the complexities and specifics on the aspect of 'social rest' and 'spiritual rest', and how they may or may not fit within the initial model, as well as explore the contribution of nutrition to the feeling of being well rested.

4.2 The State of Feeling Rested

Part two of the model asserts that being mentally well rested is "a psychological state involving feeling fresh, and valuing, being motivating toward, and enjoying one's sport" (p. 90). Though, the concept of applying more effort to their sport was not included in this one-sentence description of being mentally well rested, the model notes that mentally rested athletes felt they apply more effort to their sport as a consequence of feeling highly motivated to engage in their sport. Therefore, this current study presented being well rested as involving feeling fresh, feeling capable to apply a lot of effort, and includes valuing, being motivated toward, and enjoying one's sport. The majority of the athletes agreed that this is an accurate description of being well rested. This provides strong evidence in support of the proposed description of rest and assumes that feelings

of being well rested might be universal across different sports and different countries. Additionally, Eccles and colleagues (2021) developed an intervention tool based on this assumption, called the 'Current Mental Rest Level Measure'. Results from the current study provide evidence that this could be an accurate and useful tool for researchers and practitioners, though specific testing of this tool is needed to confirm.

4.3 The Resting Process

Part three of the model posits that one's level of rest is enhanced by engaging in resting processes involving sleep and resting while awake (i.e., wakeful resting). Wakeful resting is conceptualized as both "(a) a reduction in…psychological experiences associated with sport participation that are deleterious to feeling well rested…and, for each such experience, (b) an increase in a contrasting psychological experience that contributes to feeling well rested" (p. 93).

A review of the content analysis of athlete responses shows similarities to the initial model. Sleep was considered a mode of resting by some participants (8%); however, all other aspects of rest mentioned would constitute resting while awake. Of the wakeful resting concepts mentioned by athletes, a pattern emerged in which themes could be summarized to include either the absence or reduction of something that would be deleterious to feeling well rested, or the presence of or increase in something that would contribute to feeling well rested. For example, one athlete mentioned that rest is a "day that doesn't consist of practice or school [absence]… where I can sleep extra [increase], give my body a break from my sport [reduction], and do things I enjoy like journaling [presence]". The concept of the 'absence or reduction' of something is similar to the first

part of the proposed definition of wakeful rest, “a reduction in…psychological experiences associated with sport participation that are deleterious to feeling well rested” (Eccles & Kazmier, 2019, p. 93). The concept of the presence or increase of something is similar to the second part of the proposed definition of wakeful rest, “an increase in a…psychological experience that contributes to feeling well rested” (Eccles & Kazmier, 2019, p. 93). Though the categorization of resting experiences in this way is similar to the initial model, this is something new to explore in future research and practice.

4.4 Wakeful Resting

Part four of the model asserts that wakeful resting involves the seven resting experiences mentioned above that facilitate feeling well rested. This current study chose to evaluate athlete perceptions on resting experiences in two ways:

First, participants were asked to respond to the open-ended question ‘what does rest mean to you as a student-athlete’, which was then categorized by the research team into four major themes: Restorative Processes, Limited Stress & Effort, Personal Wellness & Endeavors, and Break from Sport. Generally, there is strong evidence in support of the initial model based on this content analysis.

'Restorative Processes' emerged as the predominant theme in the content analysis, accounting for the majority of the meaning units identified. Responses in this theme consisted of athletes describing rest as time to sleep, recover, and included anything that gave the athlete a feeling of rejuvenation or regaining of energy. No responses within ‘restorative processes’ made a direct comparison to aspects of the initial model, though assumptions could be made that activities that were considered restorative could provide

opportunity to obtain certain resting experiences from the model as byproduct. For example, an activity mentioned from this theme was yoga, which could potentially provide the opportunity to not think about their sport (assuming their sport is not related to yoga), reduce effortful thinking (if they're proficient enough in movement forms), and assume internal control (if yoga was their choice and they chose when to practice). However, this is circumstantial and dependent on multiple factors including individual athlete preferences.

Under the theme 'Limited Stress & Effort', athletes described rest as time for low mental effort and for relaxation, which connects to RE 2, reduction in general effortful thinking. 'Limited Stress & Effort' also consisted of athletes expressing rest was when they have no obligations or expectations from their sport or otherwise, which may offer the experience to get a break from feeling life is controlled by sport, thus connecting to RE 3. Lastly, because athletes in this theme noted rest as a reduction in stress and assuming this stress is primarily from sport demands and responsibilities, this major theme then also connects to RE 5.

The theme 'Personal Wellness & Endeavors', included aspects of rest like completing out-of-sport tasks, pursuing interests outside of sport, and self-care. This major theme connects to RE 6 and RE 7 because by pursuing personal wellness and endeavors, the athlete is reducing frustration and stress associated with not being able to catch up on work tasks and have a personal life outside of sport.

'Break from Sport' showed examples of rest such as not having practice and consequently an overall reduction in training, which could lead to a reduction in stress from performance demands. Therefore 'Break from Sport' has strong associations with

RE 5. This major theme also consisted of athletes needing a mental or physical break from their sport, time to "step away", which shows a strong association to RE 1.

Second, participants were presented with proposed resting experiences, and related activities to achieve each experience, based on the initial model and asked to rate their level of agreeance with the statements. Results show support for RE 1 (getting a break from always thinking about one's sport), RE 2 (getting a break from any kind of effortful thinking), RE 3 (getting a break from feeling life is controlled by sport), RE 7 (being able to have a personal life outside of sport), and the related activities to achieve each experience.

It is important to note that the only resting experience not directly asked about was RE 5 (reduction in stress from performance demands) because it's the one experience in the model that does not provide guidance towards something the athlete can do and control in enhancing their feelings of rest. For example, a reduction in stress from performance demands is facilitate by a reduction in training and competition, however this is not something that is always possible to control during in-season for athletes or even coaches and administration to some degree.

The resting experience with the highest percentage of athlete agreeance was RE 3; specifically, athletes feel that a restful experience is one in which they feel free from obligations/commitments (e.g., from sport, studying, a job) so they can do exactly what they want. According to the initial model, being externally controlled by sport reduces motivation to engage in sport and reduces the ability for athletes to regulate their resting (e.g., athletes are unable to rest when they perceive the need due to a fixed program schedule; Eccles & Kazmier, 2019). Both effects are further supported by research on the

stressor-detachment model (Sonnentag & Fritz, 2007), self-determination theory (Ryan & Deci, 2000), and athlete burnout (Eklund & DeFreese, 2015). Since there is strong evidence supporting this resting experience and its inherent benefits outside of just rest, future research should explore methods to improve opportunities for internal control from athletes.

RE 1 (i.e., getting a break from always thinking about one's sport) is supported from the results of this study, but not strongly. It is the researchers' opinion that this resting experience is the hardest concept to understand, compared to the other resting experiences. RE 1 is closely related to the theory of psychological detachment, a recovery experience in which one is mentally disengaged from work (i.e., mentally switching off) during time off from their job-related activities (Sonnentag & Fritz, 2007). This concept has been primarily associated with organizational psychology (Smit, 2015) and so it is entirely plausible that the concept has not made its way into coaching education and sport psychology spaces in any significant way. Future research could look at the impact psychological detachment education would have on athletes' perceptions of 'getting a break from thinking about sport' as a restful experience.

RE 4 (i.e., variety) was not supported within the research, which could mean athletes may feel that a lack of variety in their daily routine is not a deleterious of a psychological experience as the others in consideration. Short of eliminating RE 4 from the initial model, this experience could instead be considered a byproduct of other resting experiences. For example, getting a break from feeling controlled by sport (RE 3) would include experiences that make athletes feel free from their obligations/commitments by providing autonomy of choices during their rest days/free time. Since an athlete's

scheduled responsibilities most likely exist as part of a daily routine (e.g., practice schedule, class schedule, training sessions), opportunities to assume internal control and autonomy would also provide variety in the routine.

RE 6 (i.e., being able to catch up on important work tasks) is also not supported in the research, which could suggest the experience is contradictory to other resting experiences. For example, participating in work tasks would most likely mean effortful thinking for a student-athlete, which contradicts RE 2. Eccles and colleagues (2021) provided a suggested strategy for achieving both experiences, in which an athlete would deliberately schedule time early in their rest day during which to complete tasks. This would free up the potential stress from the work and leave time later in the day to prioritize activities low in effort and potentially make those low effort activities more effective in providing rest. More research is needed to explore the varied importance of each individual resting experience and differences in relevance of the experiences across different sport populations. For example, it is possible that RE 6 may be viewed differently for student-athletes compared to professional athletes because of the differences in work responsibilities and perceived stress associated with opportunity costs.

Across both research evaluative methods, there is strong evidence to support the validity of the experiences that encompass wakeful resting. All resting experiences were represented by either the content analysis or agreeance questions, except for RE 4 (variety). More research is needed to understand this resting experience and how it fits into the initial model. Overall, there is a lack of research attention on tedium and variety in athletes and the general population (Gonzalez-Cutre et al., 2016; cited in Eccles &

Kazmier, 2019). The concept of variety in the initial model has similarities to motivational theory related to novelty (i.e., something that deviates from one's everyday routine), which is proposed to be a basic psychological need essential for self-determined motivation (Gonzalez-Cutre et al., 2016; cited in Eccles & Kazmier, 2019). Future research could explore variety and its value as a specific resting experience through this lens as a potential motivating factor for athletes.

4.5 Wakeful Resting In-season v. Off-season

The fifth and final part of the initial model posits that opportunities to experience wakeful resting are different in the in-season compared to the off-season, with greater perceived ability to obtain all resting experiences in the off-season. This current study provides strong evidence that athletes cannot achieve quality wakeful resting experiences during their in-season compared to their off-season. This current study did not explore specific reasons why athletes felt they are unable to rest as well during the in-season, though some assumptions could be made based on ideas explained in the initial model itself. Eccles and Kazmier (2019) note that athletes are not given as much time during in-season in which they could experience all aspects of rest and they discuss an idea they call the 'balance problem'. The 'balance problem' describes the struggle for an athlete to balance their life engagements (e.g., sport, work, and personal activities) coupled with an athlete taking on too many commitments or responsibilities; this essentially reduces the overall time available to rest. Eccles and Kazmier (2019) go on to include some different factors that might contribute to the balance problem such as competition travel, peaks of work/schoolwork, and 'program creep', in which coaches schedule additional sport activities on days meant for rest.

In this current study, all but one category of restful experience showed significant differences between in-season and off-season. The one restful experience found to be statistically insignificant was related to frequency of viewing TV and media related to one's sport. It is unclear why the frequency would be approximately the same in-season versus off-season. It could be assumed that the opportunity for watching related sport content remains the same because there is no effort by athletes to change the frequency in viewing. Though watching less content related to one's sport is considered a resting experience because it allows to think less about one's sport, watching content at any frequency could be considered a resting experience if it is a personal or social activity they enjoy or allows them a break from effortful thinking (RE 6 and RE2, respectively). Another assumption could be that, out of the athletes surveyed, there is not enough TV and media to watch consistently to feel like an important factor related to rest. Many of the reported sports are not highly televised or represented sports in the media (e.g., cheer/stunt, track & field, swim & dive), therefore viewing exposure could be low overall.

However, the mean for frequency of viewing related sport media is higher during the in-season than the other resting activities, which may suggest that there is a more usage and reliance on viewing media during the athletes' in-season. Participant age ranged from 18 to 23 years old, with 57.38% being between the ages of 20 to 21, and recent surveys show that for US adults aged 18-29, 78% say they use Instagram, 67% use Facebook, and 62% use TikTok (Sidoti et al., 2024). Thus, it can be assumed that the participants' TV and media viewing would most likely be coming from social media platforms. Athletes have been found to use social media specifically for communicating

with friends and family, to gather and share information, and for promotional purposes; this usage provides gratification through connectedness and positive reinforcement from others, and by providing a means for relaxation and escape from sport pressures (Hayes, 2019). While viewing media specific to one's sport may not facilitate feeling well rested, it is possible that social media in general could facilitate feeling well rested (or at least not be deleterious towards feeling well rested).

Now that there is some evidence to support that there is a difference between opportunities to rest in-season compared to off-season, future research could further explore reasons athletes feel they are not able to rest much during the season and seek to gain insight on systemic and individual interventions to help athletes rest more during their season related to the 'balance problem' and 'program creep'. Additionally, future research could explore sport-related TV and media as a factor in the resting experience, specifically related to factors like social media usage.

4.6 Limitations and Future Directions

This research was limited in four key ways. First, participants were asked one short-answer question, 'what does rest mean to you as a student-athlete', which is an open-ended question that keeps rest in general terms as opposed to specific terms (i.e., asking specifically what mental rest means to them). Therefore, the responses reflected rest from multiple different aspects, which can be seen particularly in the major theme 'Restorative Processes'. This theme includes aspects of physical rest (e.g., recovery), mental rest (e.g., sleep), and 'social rest' (e.g., time with family/friends). Additionally, because this short-answer question was provided in survey form, there was no

opportunity to follow up on responses. Some athlete responses resulted on only one meaning unit in the content analysis; it would have been helpful to be able to ask follow-up questions to expand on the meaning behind said responses. Some athlete responses also used terminology like "rest", which is again particularly evident in the major theme 'Restorative Processes'; athletes used terms like 'recovery' and 'active rest' and wrote about rest being an opportunity to rejuvenate their energy. It would have been helpful to be able to follow-up on the athletes' perceived meaning of these terms. There is still confusion among research as to the specifics of what these types of terms mean and what they would entail from a mental perspective. Future research could explore the specific similarities and differences between similar resting terms (i.e., wakeful rest, recovery, and active rest) and seek to find a working understanding of the mental practices and benefits of each.

Second, the participant responses represent their perceptions at only a certain snapshot of time. Resting is considered a process and it's shown that opportunities to rest change over time. Longitudinal studies could provide further insight into athlete experience with resting. It also may be difficult for athletes to conceptualize rest as a concept that can be accurately explored through the research methods of this current study. Alternative qualitative methods could provide unique insight into athlete experience with resting, such as diary methods and photographic/video methods could provide insight into specific environments that afford wakeful resting to occur.

Third, participants were not directly asked about their perception of RE 5 (reduction in stress from performance demands) as a resting experience. The researchers initially felt this was not appropriate to include, because athletes are not in control of

achieving this resting experience comparatively with the other experiences. There is evidence to support RE 5 within the content analysis results, however it is a potential shortcoming to not have quantitative evidence in support of this experience and subsequently in support for its place within the initial model of rest.

Fourth, the participants were only athletes from university women's sports. The initial model was created based on responses also from university women athletes. Future research should explore potential differences in perceptions of rest and wakeful resting experiences across gender and across different competitive levels of sport (e.g., collegiate vs. professional).

4.7 Summary and Conclusions

In conclusion, this study aimed to investigate the degree to which Eccles and Kazmier's (2019) initial model of rest in athletes was generalizable to other sport and performance populations in addition to comparing the perceived frequency of psychosocial rest during in-season and off-season. Results provided strong support for the initial model and its applicability to other sport populations, though further evidence is needed for the support of 'variety' as a key wakeful resting experience. Results also provided strong evidence of a significant difference in opportunities to obtain restful experiences throughout an athletic season, with less opportunities in the in-season compared to the off-season. The importance of rest is well agreed-upon, but we still don't know as much as we should about the potential psychological benefits rest might have on athletes and what could best support them in obtaining quality rest. This study provides further knowledge on what it means to rest, to feel rested, and the factors that either

enhance or hinder this experience. This important insight advances our understanding on biopsychosocial rest and its potential impact across numerous research domains and practical applications.

APPENDICES

APPENDIX 1. EXTENDED LITERATURE REVIEW

What is Rest?

From a physical/physiological perspective, “rest” typically refers to the cessation of activity (Eccles & Riley, 2014). However, there is currently little understanding about what it means to rest from a psychosocial perspective. There is also little research exploring the best practices to achieve optimal rest other than sleeping; namely the concept of rest from a wakeful state.

Rest is universally accepted as a basic need, however, there lacks a clear definition and prescription in research literature. For example, Bernhofer (2015) analyzed 27 separate studies that included a definition and/or provided a prescription of rest across multiple disciplines: medicine and nursing, physical and occupational therapy, and psychology. Some of the questions used in the literature investigation included: How is rest described or defined? And for what purpose is rest described? Results showed that rest as a term was inconsistent among the different disciplines. Because rest was seen as vague, this also contributes to confusion of similar terms (e.g., relaxation, sleep). The author proposed a basic definition of rest based on the reviewed literature; Rest is thought of as a temporary, restorative, and beneficial state involving the cessation of physical, mental, or spiritual work (Bernhofer, 2015; Kazmier, 2020).

The lack of consistency in the understanding and prescription of rest can lead to confusion among practitioners and those they work with. For example, one study by Pike (2005) looked at a group of rowers who experienced frustrations with their medical professionals. The rowers felt those professionals gave a vague prescription of rest, which

implied rehabilitation and a lack of overall activity, and generally cared less about their individual complications. This led the rowers to turn to more holistic forms of health care. Conclusions of this study suggest that there is a general distrust between medical and holistic forms of health care practice, which can be hindering to the conceptualization and implementation of resting techniques. This study suggests a current duality in resting techniques, that of rest as inactivity in medical prescriptions and rest as active techniques in holistic domains (Kazmier, 2020; Pike 2005).

Another opposing duality has been proposed in research, that of "rest" and "non-rest", by research from Asp (2015). This researcher interviewed participants about their lived experiences of rest which led the researcher to identify "rest" as "the feeling of being in harmony in motivation, feeling, and action", while "non-rest" was identified as being in disharmony with factors associated with "rest". This duality implies that the type of rest must fit the need of the individual and rest requirements might not be the same for all individuals. One may feel they need to rest from various factors in life (physical, mental, social, emotional) which would allow them to develop their own description and possible prescription of rest in their lived experiences (Asp, 2015; Kazmier, 2020).

We see that there is still a level of ambiguity to an agreeable definition of rest across professional disciplines. There seems to be a general understanding of rest, however the proposed definitions either have only the physical perspective as the emphasis (Eccles & Riley, 2014) or provide little expansion to what the restorative benefits of rest are in relation to the cessation of 'mental and spiritual work' (Bernhofer, 2015; Kazmier, 2020). Much of the literature lacks specific and tangible answers to how

we might define and describe a resting experience to a degree that a lay person could understand and replicate in their own life.

Eccles and colleagues discuss this gap in the sport psychology literature in their review, *"The forgotten session": Advancing research and practice concerning the psychology of rest in athletes* (Eccles et al., 2022). They noted that rest might be overlooked in the science and practice of athletics due to a natural tendency to focus on physical athletic actions because they are exciting and fundamental to sport (Podlog & Eklund, 2005, cited in Eccles et al., 2022), whereas traditionally rest is considered to involve inactivity and might be of little interest. Additionally, outcomes of competitions are direct consequences of physical actions during said competitions; by comparison, rest is typically experienced away from competition in both time and space and thus it might seem less apparent that outcomes of competition are related to engagement in the resting experience. Rest might even be seen as a less tangible concept and more private experience, compared to physical actions which tend to be easier to identify, define, and measure (Eccles et al., 2022).

More generally, rest could be seen by researchers and practitioners as a simple and self-explanatory concept, a concept that is thus undervalued at cultural and societal levels. The problem is that this deemphasizes the need for descriptive analysis and further study on rest (Eccles et al., 2022). Especially in athletic populations, the pressure to perform has given rise to a sport subculture characterized by a "performance narrative" (Douglas & Carless, 2015, cited in Eccles et al., 2022) which places high value on constant effort and resilience, which can lead to a quantity-over-quality style of training (Coulter et al., 2016, cited in Eccles et al., 2022). The notion of rest in this described

setting shows the growing need for a more in-depth look at the athlete's experience and understanding of rest.

In their review, Eccles and colleagues (2022) emphasize that there exists only a few sets of literature that refer to rest occasionally or implicitly; those research areas are recovery, motor skill learning, and expert performance. Since the subject is not directly studied in sport psychology literature, the authors adopted a narrative review method and compared literature from these related research fields to create a new area of research focused on wakeful rest in athletes. The authors give a detailed review of relevant literature of rest in the areas of recovery, motor skill learning, and expert performance and suggest future research directions for the development of defining factors of psychological wakeful rest based off insight from these key areas. Eccles and colleages (2022) utilize a significant portion of their paper for a focused discussion on the foundational study (Eccles and Kazmier, 2019) in the field of sport psychology that directly attempts to address the lack of understanding on rest from a psychological perspective and specifically prioritizes the investigation to how athletes rest specifically.

How do athletes Rest?

In 2019, researchers Eccles and Kazmier published a study in which they designed an initial descriptive model for the psychological rest in athletes and provided a better an overall better understanding of the subject. The researchers interviewed athletes (n=18) and staff members (n=4) of a university field hockey squad about their experiences and meanings of rest; then an inductive content analysis was performed to

identify key concepts in the interview data. In their results, the authors propose their initial descriptive model of rest in which being mentally well rested is stated as 'a psychological state involving feeling fresh, and valuing, being motivating toward, and enjoying one's sport' (p. 90). The athletes considered the resting process to include both sleep and wakeful resting. The conceptualization of wakeful resting included "(a) a reduction in, or "break from" psychological experiences associated with sport participation that are deleterious to feeling well rested, which [they] term *deleterious psychological experiences*; and, for each such experience, (b) an increase in a contrasting psychological experience that contributes to feeling well rested, which [they] term a *resting experience*" (p. 93). A visual representation of Eccles and Kazmier's initial model of the described resting process can be found in Table 1.

Table 1. Visual representation of initial model of rest (Eccles & Kazmier, 2019)

Table 1
Deleterious psychological experiences and contrasting resting experiences associated with athletes' conceptualizations of wakeful resting.

Deleterious psychological experience	Resting experience (abbreviation)
Always thinking about one's sport	Reduction in thinking about one's sport (RE 1)
	Reduction in effortful thinking generally (RE 2)
Being externally controlled	Assuming internal control (RE 3)
Tedium	Variety (RE 4)
Stress from performance demands	Reduction in stress from performance demands (RE 5)
Stress and frustration associated, respectively, with work-related and personal non-sport opportunity costs	Reduction in stress associated with work-related opportunity costs (RE 6)
	Reduction in frustration associated with personal opportunity costs (RE 7)

The athletes' conceptualizations of wakeful resting experiences include: 1) reduction in thinking about one's sport, 2) reduction in effortful thinking, 3) assuming internal control, 4) variety, 5) reduction in stress from performance demands, 6) reduction in work-related stress, and 7) reduction in frustration associated with personal opportunity costs (Eccles & Kazmier, 2019). The authors describe each of the rest-

contrasting deleterious experiences and outline behavioral, social, and environmental conditions that facilitate and debilitate the resting experience:

Deleterious psychological experience (DPE) 1: *Always thinking about one's sport.* Athletes tend to be constantly engaged in sport-related activities (e.g., training, meal preparation, team social activities) which can be mentally fatiguing and lead to reduced motivation to engage in their sport. Athletes also tend to place a high level of importance on their sport due to high investment or performance pressure which can cause feelings of anxiety, an experience that is mentally effortful. Because always thinking about one's sport is mentally fatiguing, athletes also require a break from sustained effortful thinking. The resting experiences associated with this DPE are a reduction in thinking about one's sport (i.e., "switching off") and a reduction in effortful thinking generally.

DPE 2: *Being externally controlled.* Athletes feel their lives in-season are controlled by external factors like a relatively fixed training schedule and program expectations. This is unfavorable because athletes want to have time for themselves and feel they have control over their lives. External control as a consequence reduces motivation to engage in their sport. External control is also unfavorable because athletes have a reduced ability to regulate their resting when they feel they need it. The resting experience associated with this DPE is assuming control over one's life (internal control).

DPE 3: *Tedium.* Over the course of an athletic season, athletes feel a lack of variety; they often spend their time following the same schedules, in the same physical spaces, with the same people. The tedious nature of the athletes'

experience can reduce motivation to engage in their program. The resting experience associated with this DPE is experiencing variety in routines, and social/physical environments.

DPE 4: *Stress from performance demands.* Simply put, training and competition aspects associated with high-level sport programs are mentally demanding. The athletic experience at the elite level requires high concentration, which is cognitively demanding, and there can be associated pressures to perform, which is emotionally demanding. The resting experience associated with this DPE is a reduction in the mental demands of training and competition, which is generally facilitated by a reduction in training and competition.

DPE 5: *Stress and frustration associated with work-related and personal non-sport opportunity costs.* Commitments as an athlete often lead to the feeling of not being able to pay enough attention to life outside of sport. Often, athletes have work activities to tend to outside of their sport, such as studying or paid work, and feel stressed when they are unable to attend to this work. Athletes also want to engage in personal activities, like relationships and hobbies, and feel frustrated when they are unable to experience these activities due to sport commitments. The resting experiences associated with this DPE are a reduction of stress associated with work-related opportunity costs and a reduction of frustration associated with personal opportunity costs.

Eccles and Kazmier (2019) noted in their results that opportunities for experiencing wakeful rest are different between in-season and off-season. During the off-season, there are many opportunities to obtain all resting experiences. In the off-season

sport activities are put on hold, this allows for a reduction in always thinking about one's sport and the associated mental demands, more time for work and personal activities, more variety in their routines and environment, and more assumed control over life.

During in-season, athletes might usually be given two scheduled rest days during which there are no program activities. Eccles and Kazmier (2019) describe how athletes often begin the day by spending time on work activities (reduction in DPE5) that have been postponed due to sport commitments, then will engage in activities with a low cognitive demand in physical and social environments with a low cognitive demand (reduction in DPE1). An example of a low-cognitive-demand resting experience could be watching tv or reading, in a physical environment that is at home, maybe in bed. On rest days, social environments can range from being alone to meeting a few close friends for a night out. Being alone avoids the demands of social interactions and subsequently enhances a sense of internal control (reduction in DPE 2). Rest days afforded in-season can also provide variety in life and allow a break from the mental demands of training and competing (reduction in DPE 3 & 4).

One of the key barriers to resting during the season is what Eccles and Kazmier (2019) call the "balance problem", which is described as the athletes' "struggle to balance engagement between areas of their lives, which include sport program, work, and personal activities, and often take on too many commitments, reducing time available for resting" (p. 95). Some factors contributing to the balance problem include travel to competitions, peaks of work (e.g., study deadlines), over-conformity, and other sport commitments (e.g., representing one's country), all of which can lead to sport engagement on rest days. One major factor contributing to the balance problem is what

the authors term “program creep”, which is when “coaches schedule additional program activities on rest days” (p. 95). Some strategies in response to the balance problem include the coaches’ scheduling and adjustment of program activities and the athletes’ use of organizational skills (Eccles & Kazmier, 2019). The authors’ strategies might suggest that the balance problem, and subsequently the need for quality rest, might be a systemic problem and something that needs to be researched further from a sociological lens.

In their literature review, Eccles and colleagues (2022) expand on the initial model of the psychology of rest in athletes and elaborate on a sample of the resting experiences outlined in the model. The authors provide example key concepts related to specifically three wakeful resting experiences: a reduction in thinking about one’s sport, a reduction in effortful thinking generally, and increased internal control (Table 2).

Table 2. Key concepts related to three wakeful resting experiences (Eccles et al., 2022)

Table 1. Key concepts concerned with three wakeful resting experiences leading to an enhanced level of rest in athletes.

Contextual aspects of athlete in sport program	Resultant psychological experience	Deleterious psychological consequence	Resting experience	Contextual conditions facilitating resting experience	Examples of activities and environments meeting facilitating conditions		
					Activities	Social environments	Physical environments
Constant engagement in sport-related activities	Always thinking about one’s sport	Anxiety, mental fatigue, reduced motivation	Reduction in thinking about one’s sport	Engaging in contexts unrelated to sport	Watching non-sport-related TV show	Alone	–
Importance of the sport to the athlete			Reduction in effortful thinking generally	Engaging in low-cognitive-demand contexts	Watching “crap” TV	Alone	At home, in room, in bed or with feet up
Fixed training and competition schedules Program directives on sleeping, eating, socializing	Feeling externally controlled	Frustration, reduced motivation	Assuming internal control	Engaging in contexts absent of external imperatives	Watching TV	Alone	–

The first table column provides personal and environmental contextual elements associated with being an athlete; for example, during the season athletes are constantly engaged in sport-related activities, such as training, competition, meal preparation, team meetings, and social activities. The second table column presents the resultant

psychological experiences of the contextual aspects from column one; for example, constant engagement in sport-related activities can lead the athlete to feel they are always thinking about their sport. These psychological experiences by the athletes can be deleterious to their feelings of being well rested; these deleterious consequences are presented in table column three. For example, if one is always thinking about their sport, this can be mentally fatiguing and lead to reduced motivation.

Deleterious psychological consequences can be reduced by participating in resting experiences, provided in table column four; for example, if one is feeling mentally fatigued and anxious, this can be remedied by reducing thinking about one's sport and reducing effortful thinking generally. The fifth table column provides different contextual conditions that could help athletes better obtain the listed resting experiences; for example, a reduction in thinking about one's sport is facilitated by engaging in activities and environments that are unrelated to one's sport. Then in the final columns of the table, examples are given of facilitating activities, social environments, and physical environments.

It is interesting to note that the facilitating social factor of the resting experience is to be alone, which contradicts the often-negative view of a state of solitude. Solitude on rest days appears to help enhance feelings of being well rested, outlined potentially by two key factors: 1) solitude provides opportunity to reduce effortful thinking and 2) solitude provides opportunity to experience greater autonomy, with no need to consider others' needs or desires (Eccles, Kazmier, & Ehrhardt 2021).

When looking at Table 2 holistically, one could potentially narrow down all the examples to meet facilitating conditions into just one wakeful resting activity example:

watching non-sport television alone in one's room, in bed with their feet up (Eccles et al., 2022). The productive nature of this activity is that it encompasses all three example resting experiences suggested by the authors. The athletes gain internal control because the activity is something chosen by them (i.e., they choose what to watch and when). The athlete is limiting reducing their cognitive load because television by nature (depending on the programming) does not generally require effortful thinking. The athletes are also not thinking about their sport because they are watching something non-sport related and they are not in an environment that reminds them of their sport.

Not thinking about one's sport connects to aspects of psychological detachment (i.e., mentally "switching off") and the Stressor Detachment Model (i.e., harder to "switch off" the higher the current work stress) (Sonnentag & Fritz, 2007, 2015). Psychological detachment might arguably be the most important component of the initial model of rest in athletes and it provides evidence of the central idea that resting is a much more complex endeavor than previously understood.

Rest and Psychological Detachment

If we accept the definition of rest as that of physical inactivity, the problem is that this does not guarantee that one is able to cease psychological activity (Eccles et al., 2022). Athletes can experience anxiety during competition, but there are also a wide range of sport-related stressors that can present themselves to athletes (e.g., environmental, personal, leadership, and team issues) that could lead them to experience anxiety *outside* of training and competition spaces, including on rest days (Woodman &

Hardy, 2001). Psychological detachment is a concept usually associated with research and practice within organizational psychology. Psychological detachment is a crucial recovery experience that means one is mentally disengaged from work (i.e., mentally switching off) during time off from their job-related activities (Sonnentag & Fritz, 2007). A lack of psychological detachment has been found to be a partial mediator linking work stressors and strains; a finding seen from studying what is known as the Stressor-Detachment Model, which suggests essentially that when work stressors are high, one finds it difficult to psychologically detach (Sonnentag & Fritz, 2015). This is what is called a recovery paradox (Sonnentag, 2018) and shows that it might be important to be mindful of the stressful demands that are being placed on athletes each day and not just emphasize activities to promote detachment.

There has been little research to consider and conceptualize rest as psychological inactivity among *athletes*, until recently. Balk et al. (2019) aimed to investigate the role of mental detachment in predicting levels of mental energy and injury prevention in athletes. The authors also wanted to look at the mediating role of sleep on mental recovery (detachment), injury and mental energy. A cross-sectional survey was given to recreational athletes to gauge their experience with the outlined variables of mental recovery (RESTQ-Sport), mental detachment (Pressure scale), physical recovery (Fitness scale), injury (Injury scale), mental energy (Lack of Mental Energy scale), sleep quality (Sleep Quality scale), and sleep deprivation. Control variables included age, gender, and number of hours/week participants engaged in sport. This study found that mental detachment was negatively associated with injury and positively associated with mental

energy; sleep deprivation was found to partially mediate the relationship between mental detachment and mental energy.

In 2017, Balk and colleagues (2017) expand on the idea of mental recovery by describing and differentiating between two components of psychological detachment: cognitive and emotional detachment. The purpose of the study was to test the matching hypothesis in relation to daily sport demands, detachment, and recovery state in elite athletes. The authors outlined detachment (getting a physical, cognitive, and emotional break from effortful demands) as a recovery experience to combat high sport demands on well-being. They also outline that the matching hypothesis states recovery strategy effectiveness is dependent on matching it to sport demands. Athletes completed a daily diary two times per day for eight consecutive days, once after waking up and again at bedtime. Physical, cognitive, and emotional detachment and recovery states were measured using scales developed by De Jonge et al (2012) and Sonnentag (2003), respectively (cited in Balk et al., 2017). They were testing associations between daily sport demands, detachment, and recovery state at bedtime (controlling for recovery state after waking up). Results showed that there was a positive relationship between physical detachment and physical recovery as well as a positive relationship between emotional detachment and cognitive/emotional recovery. Thus, both physical and emotional detachment might be effective recovery strategies, especially when the detachment matches the type of effort spent.

There is still more research needed on *how* athletes might psychologically detach and experience wakeful rest in this way. Future research should involve identifying the underlying mechanisms in achieving effective psychological detachment for athletes, as

well as environmental conditions that might better afford detachment (Eccles et al., 2022). Examples of this work can be found in organizational psychology. For example, Smit (2015) produced a study proposing that in understanding the occurrence of detachment, we must first understand what people are failing to detach from.

Smit (2015) outlines work detachment, mentally/physically disengaging from work during off-hours, as a prerequisite to effective daily recovery and psychological well-being. The author notes that current research does not tell us why some employees fail to detach nor how to effectively increase detachment. Therefore, the purpose of the study was to expand the definition of detachment (drawing on self-regulation theory) to develop a theoretical framework describing how goals shape detachment. This proposed framework further helps to explain why and how employees fail to detach from work and creates a remedy for those who find difficulty in detaching. Participants of the study were employees who submitted two surveys per day. The after-work survey collected data on daily unfulfilled goals, daily goal successes, goal valence, and daily workload. The before-bed survey collected data on goal-level psychological detachment, daily global psychological detachment, daily relaxation, and state negative affect. Participants completed these surveys for an average of 3.3 days. Part of the study used experimental manipulation in which participants were randomly assigned into the planning condition group or control. The planning group was instructed to create a plan for where, when, and how they would accomplish each unfulfilled daily goal. Results showed that employees had more difficulty detaching from incomplete work goals compared to completed goals. Results also showed that creating plans to resolve incomplete goals increased psychological detachment in employees who exhibited traits for inhibiting detachment.

There is also research on how one's physical environment might impact the success at which they can effectively achieve psychological detachment. For example, research in the military on "third location decompression" has looked at the potential psychological benefits of debriefing post-deployment in a location that is away from the area of deployment but is also not back at home; third location decompression aims for personnel to begin to psychologically "unwind" after deploying and be encouraged to participate in relaxing social and leisure activities (Jones et al., 2013). In a study by Jones and colleagues (2013), they found that third location decompression appears to help reduce multiple physical symptoms and symptoms of post-traumatic stress disorder and alcohol misuse. Jones et al. (2013) note that a social intervention promoting rest might benefit personnel by providing them the opportunity to "decompress" and begin the cognitive processing of their deployment experiences before coming home.

Loehr and Schwartz (2001) recommend a similar strategy to third location decompression in their article "The Making of a Corporate Athlete". Loehr and Schwartz (2001) view peak performance in the corporate world as a pyramid, with each level linked by rituals. One level of their pyramid is "spiritual capacity", which to the authors means tapping into one's values and purpose to sustain energy, motivation, focus, and resilience. Loehr and Schwartz (2001) provide an anecdote of a person who developed a ritual of stopping at a local park on his way home from work every day. By stopping at this location for at least ten minutes before returning home, it allowed him to disengage from work and provided an opportunity for time to pause and reflect, like activities of meditation or journal writing.

The recent research on psychological detachment only scratches the surface of what might constitute rest among athletes and other performers. There is still work to be done on understanding what all constitutes rest in these performance populations as well as the best practices for how to achieve more optimal resting experiences. Our current understanding of rest from a biopsychosocial perspective might come with a certain level of uncertainty and lack of evidentiary support, yet we also see in research and practice that there is no shortage of reference to the *importance* of rest and the benefits rest can provide to one's performance and recovery.

Importance and benefits of Rest in training and competition

Rest is integral in sport, performance, and exercise domains because of the positive impact it can have, and reversely the negative impact poor rest can have. Eccles and Riley (2014) have outlined the functions rest serves and note that effects are dependent on the length of rest and the length and type of event in which rest is included. In this way, rest can be split into two main categories based on the timing of implementation: rest periods within the event (usually in seconds or minutes) and rest periods in between events (usually in hours or days).

For rest periods within the event (e.g., practice, competition, exercise session): rest serves to reduce physical fatigue through energy replenishment and waste product removal, reduce cognitive fatigue through replenishment of attentional capacity, and enhance the learning of movement skills via distributed practice (Eccles & Riley, 2014). For example, Freitas de Salles et al. (2009) performed a review of literature on physical

responses to resistance training following different rest periods between training sets. The authors found rest periods to be beneficial within training, but optimal duration of rest periods between sets is dependent on an individual's training goals and their sport. The authors also found that when training for muscular strength, rest intervals of three to five minutes between sets is more effective, whereas when training for muscular hypertrophy and endurance, shorter rest intervals are more effective (Freitas de Salles et al., 2009; Kazmier, 2020).

For rest periods in between events (e.g., off-days, deload weeks): rest enhances energy replenishment greater than within-the-event resting, allows for supercompensation after overload, facilitates learning of new motor skills through enhancement of memory consolidation, and helps reverse decrements in motivation resulting from extended time commitments and immersion in the sport environment (Eccles & Riley, 2014). For example, Dewar and colleagues (2014) published an article in which their research aim was to test the impact of wakeful rest directly after learning compared to a short period of sensory stimulation on long-term memory. It's been suggested that periods of wakeful rest provide ideal conditions for mental rehearsal and consolidation of memories. Wakeful rest can typically be defined as "a period of time spent engaged in little cognitive and physical activity while awake and is contrasted with sleep, which is considered as non-wakeful rest" (Dewar et al., 2014, cited in Eccles et al., 2022, p. 5).

Dewar et al. (2014) used two experimental designs in their study. *Experiment 1* split participants into 'high sensory stimulation' and 'minimal sensory stimulation' groups. For session 1, both groups were presented with a list of common nouns and were told to remember them for a subsequent immediate free recall. Following the recall, the

high sensory group completed a spot-the-difference task for 10 minutes while the minimal sensory group rested wakefully for the same time. Then everyone completed a 5-minute distractor task (spot-the difference) followed by a surprise delayed recall test of the original noun list. For session 2 (7 days later), all participants completed another surprise delayed free recall and a 30-tiem yes/no recognition test. *Experiment 2* split different participants into the same two groups as Experiment 1. For session 1, both groups were presented with jumbled non-words and a person's face (as if someone is introducing themselves with a name you do not recognize). Immediately after, the two groups either did a spot-the-difference or rested (same as Experiment 1). Then everyone completed a 5-minute distractor task (spot-the-difference) followed by a yes/no non-word recognition test. For session 2 (7 days later), completed a second recognition test. Results showed that wakeful rest contributed to a boost in memory observed for both free recall and recognition, which was maintained for at least 7 days.

The benefits of rest over an extended period are also considerable. Generally, periods of training are subdivided into various levels of planning that span from long-term, multi-year planning to individual workouts contained to a specific day of training (Gregory & Erin Haff, 2011). A quadrennial training plan is commonly used by professionals for athlete preparation. This plan is sequenced into progressively smaller timeframes starting with the annual year (called the macrocycle) which is split into three different phases: preparatory, competition, and transitional phases. It is during the transitional phase (usually lasting 4-6 weeks) that training load is significantly reduced and there is minimal emphasis on sport-specific skills; it is understood that this phase is used to refresh one both mentally and physically and allow them to exercise at a reduced

training load (Gregory & Erin Haff, 2011). Rest in the transitional phase sometimes involves 'active rest' which "involves engagement in activities designed to help the performer maintain a base of physical fitness and movement skill while imposing a low training load" (Eccles & Riley, 2014, p. 599). Resting in this phase of training has the same benefits of rest periods between events described above including the reversal of decrements in motivation which, in the case of an annual training plan, may follow the preparation and competition phases.

Rest is clearly a useful tool for athletes if they want to optimize their performance. Rest is utilized at several different time points in the training and competition process and for different periods of length to supplement improvement for the athlete, both physically and mentally. In this way, rest could be considered a key component of recovery, though rest is rarely the focus on research of the topics of recovery.

Rest and Recovery

Rest is a term referred to frequently within recovery literature, though it is typically associated with a state of inactivity (Kellmann et al., 2018). In a consensus statement on recovery and performance in sport, Kellmann and colleagues (2018) provide definitions of central terms associated with recovery and rest. Recovery is regarded as a restorative process over time in which one combats fatigue and re-establishes a biopsychosocial balance in resources. Kellmann et al. (2018) notes that recovery can be split further into terms of regeneration, the physiological aspect of recovery, and

psychological recovery in which one compensates mental fatigue through strategies like psychological relaxation techniques. Methods for aiding in recovery include passive methods (e.g., rest), active methods (e.g., cooldown jogging) and proactive methods (social activities that imply a high level of self-determined choice in activities depending on individual needs). The authors also provide a definition of fatigue, which they consider a condition of augmented tiredness due to physical and mental effort (Kellmann et al., 2018).

A certain level of fatigue, resulting in functional overreaching, can be facilitative to performance when coupled with comprehensive recovery. Functional overreaching describes a short-term decrement in performance sans maladaptive consequences in training (Kellmann et. al., 2018). However, when coupled with a continuous lack of recovery, functional overreaching could lead someone to a state of nonfunctional overreaching, characterized as training-specific negative psychological and hormonal alterations leading to performance decrements (Meeusen et al., 2013). Insufficient recovery and nonfunctional overreaching are generally precursors to overtraining syndrome (Kellmann et al., 2018) and burnout syndrome (Eklund & DeFreese, 2015).

Eccles and Riley (2014) characterize overtraining syndrome as a "long-term decrement in performance capacity restored only following weeks or months of rest", and burnout syndrome as a "long-lasting experience of emotional and physical exhaustion, sport devaluation, and reduced sense of accomplishment" (p. 600). Common symptoms of overtraining include physical fatigue, mental exhaustion, and sleep disturbances; burnout symptoms include mental and physical exhaustion, loss of interest, and increased anxiety (Weinberg & Gould, 2019). It stands to reason then that chronic failure to rest

could lead to physical and psychological problems that impede performance, slow recovery, lower motivation, and decrease one's sense of mental well-being, such as with overtraining and burnout syndromes (Eccles & Riley, 2014).

Much of the recovery research still aims its (however limited) focus of rest from the standpoint of achieving rest in the physical sense, while recognizing there might be psychological benefits along with physical ones. Overall, it should be considered though that athletes can be at their most psychologically active when resting physically because their attention is not consumed by the demanding activities of their sport; when given the time and space to be apart from sporting activities, athletes might unknowingly be given the opportunity to worry more about their performance outcomes (whether negative or positive) which could be mentally and emotionally fatiguing (Eccles et al., 2022). This strengthens the importance for a better understanding of psychological detachment in athletes as a component of rest but also as a potential means to advance athlete recovery.

Given what we know regarding physical activity, rest and its primary function seems to serve as an aid to recovering from both physical and psychological fatigue (Kellmann et al., 2018). Thus, there is strong evidence to support the fundamental positive impact rest can have to the recovery process, both physically and psychologically, acutely and over time. Rest is also considered one of the most effective means for prevention and treatment of overtraining and burnout syndromes and their symptoms (DeFreese et al., 2021; Eccles et al., 2022; Kellmann et al., 2018; Meeusen et al., 2006). Given the accepted benefits of rest, and the recent insight into *how* athletes rest from Eccles and Kazmier's initial model (2019), there becomes a growing importance for athletes and practitioners to understand how we rest *more.*

How do we Rest more?

Shortly after the publication of the initial model from Eccles and Kazmier (2019), Eccles and colleagues published a paper, titled *How to help athletes get the mental rest needed to perform well and stay healthy* (2021), in which they took the empirical study of the initial model and structured the information into a practical, application-based, guide. The purpose of the article was to draw on the developing science of mental rest and provide a practitioner's guide on how athletes and performers can more optimally obtain mental rest. The authors outlined the current relevant science and the importance of mental rest, specifically in areas such as recovery and skill acquisition. The authors present two ways to achieve mental rest, sleep and wakeful rest, then provide strategies on how to obtain a better experience. They categorize optimal wakeful resting into six psychological experiences, based on the 2019 initial model from Eccles and Kazmier, which they called the 'special 6'. The following are six wakeful resting experiences and their importance, as outlined by Eccles and colleagues (2021):

> **Resting experience (RE) 1**: *Getting a break from always thinking about one's sport.* Often athletes feel a constant engagement in their sport, and all it entails, which is effortful mentally. Over time, this may lead to mental fatigue and less motivation, which are both symptoms of athlete burnout. In short, an athlete will feel more rested if they can 'switch off' from thinking about their sport on rest days.

RE 2: *Getting a break from any kind of effortful thinking.* Because of the fatiguing effortful thinking required of one's sport, athletes need a break from thinking about their sport but also from effortful thinking in general. An athlete might feel more rested if they can spend time 'not thinking hard' on their rest days.

RE 3: *Getting a break from feeling life is controlled by sport.* Generally, athletes experience little autonomy in decisions regarding their sport. For example, training and practice sessions are scheduled for them, as are what and when to eat and sleep, and even when to socialize, whom with, and the nature of the social activity. Perceptions of how much control the athlete has can impact motivation of engagement. The athlete might feel more rested if they can spend time doing exactly what they want on their rest day, without regard to external commitments or administrative control.

RE 4: *Getting a break from the monotony of the daily routine.* Athletes have much of their lives scheduled out for them and often follow the same routine in which they train, socialize, operate, and sometimes even reside at the same venues and with the same people for the season. An athlete could thus benefit from adding variety to their otherwise monotonous routine. An athlete can feel more rested by spending time on their rest day doing something untypical, in a different location, with different people.

RE 5: *Being able to catch up on important work tasks.* Athletes can feel stress when they are unable to complete tasks such as paid work, studying, and/or chores, but have difficulty paying enough attention to these tasks because of the

high demand from their sport commitments. If given the opportunity on a rest day to complete their outstanding work tasks, the athletes would remove stress in this form and might feel more rested.

RE 6: *Being able to have a personal life outside of my sport.* Athletes can feel frustrated when they cannot spend time with family and friends or engage in their other hobbies and interests but have difficulty having enough of a personal life outside of their sport because of the high demand from their sport commitments. If an athlete gets the opportunity to engage in a personal activity on their rest day, they become less frustrated and might feel more rested.

The authors were able to create a questionnaire based on the 'special 6' called the Wakeful Resting Experiences Questionnaire (Table 3). They also created the Current Mental Rest Level Measure tool based on the 2019 initial model, used for identifying how mentally rested one feels (Table 4). Finally, an intervention plan is proposed for practitioners or researchers: one would first monitor mental rest through baseline measurements of sleep and initial responses in the Wakeful Resting Experiences Questionnaire, then implement an individualized mental rest plan based on questionnaire responses, and track progress over time through repeat measure of Current Mental Rest Level Measure tool.

Table 3. Wakeful resting experiences questionnaire (Eccles et al., 2021)

Table 3. Wakeful resting experiences questionnaire.

Wakeful Resting Experiences Questionnaire

Please think about your *free time* outside of training and competitions, and your college or work schedule, over the last 2 weeks.

	In your free time over the last 2 weeks, how frequently have you been able to...	Never	Rarely	Sometimes	Often	Always
1	Spend time thinking about something other than your sport?	**0**	**1**	**2**	**3**	**4**
2	Get a break from doing things that require you to "think hard"?	**0**	**1**	**2**	**3**	**4**
3	Feel free from obligations and commitments (e.g., from your sport, from studying, from a job) so that you could do exactly what you wanted?	**0**	**1**	**2**	**3**	**4**
4	Do something different from your everyday routine (e.g., spend time with different people, eat different foods, go to different places, walk and drive different routes)?	**0**	**1**	**2**	**3**	**4**
5	Undertake required work activities (e.g., class assignments, studying, paid work, chores, etc.)?	**0**	**1**	**2**	**3**	**4**
6	Engage in personal activities and areas of life outside of your sport (e.g., family, friends, relationships & hobbies)?	**0**	**1**	**2**	**3**	**4**

Table 4. Current mental rest level measure (Eccles et al., 2021)

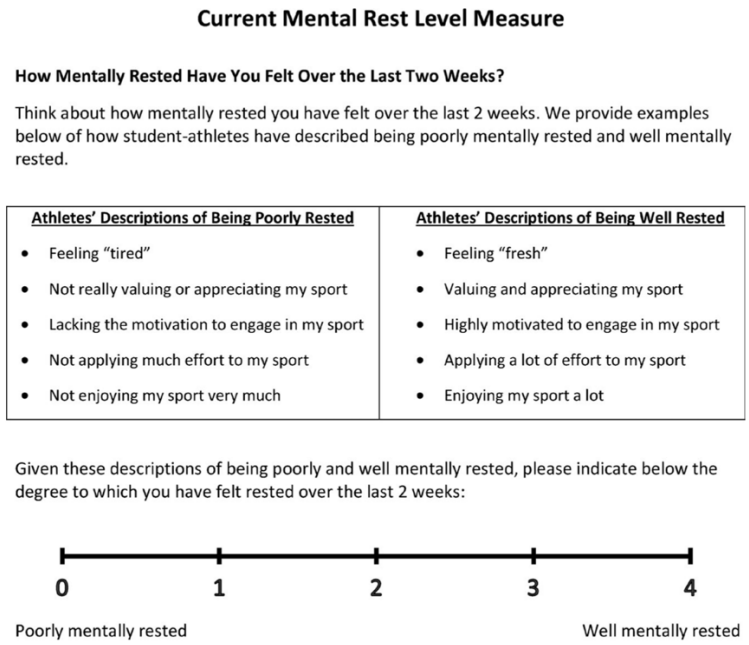

Figure 1. Current mental rest level measure.

The authors additionally provide some strategies for obtaining the 'special 6' wakeful resting experiences, which could be used as a guide for practitioners in

developing personalized interventions for athletes. The following are the strategies for obtaining the six wakeful resting experiences, as outlined by Eccles et al. (2021):

Getting a break from always thinking about one's sport: There are two main principles an athlete can prioritize when developing their strategy to break away from thinking about their sport: achieve a focus that is different from their sport and avoid cues that remind them of their sport. When choosing a different focus than their sport, athletes can try to focus on a hobby or something they find intrinsically interesting as long as it is unrelated to their sport (e.g., doing a jigsaw puzzle or watching a favorite television show). When avoiding specific sport cues, athletes can avoid seeing physical items and going to places that remind them of their sport and avoid people who might talk about or remind them of their sport. A means for avoiding all these cues is to simply "leave town." Action steps for avoiding cues include spending time alone or with people who are not affiliated with the team, going somewhere other than frequently visited training spots, putting sport equipment out of sight, spending less time on one's phone, and planning to leave town (even if it's not very far).

Getting a break from any kind of effortful thinking: Athletes are able to achieve this resting experience by engaging in activities and environments with few mental demands. Example activities include watching a favorite television show, cooking, jogging, listening to music, and reading fiction. Example environments include being in one's bedroom with the door closed, in nature, or in traditionally relaxing venues such as a coffee shop, all of which would be best spent either alone or with a few close friends and family.

Getting a break from feeling life is controlled by sport: Athletes obtain this experience by planning for their rest days to include "me time" during which they can do what they want, when they want (including just doing nothing). This time is often spent alone because it enhances feelings of control and autonomy by removing obligation to consider the needs of others.

Getting a break from the monotony of the daily routine: Athletes have described attempts to "break the monotony" as switching up their normal routines. Examples of switching up activities include reading a fiction book for leisure and going shopping. Examples of switching up locations include jogging on a different route, driving across town to a coffee shop they don't normally visit, and taking a day trip to a new location. Examples of switching up people include meeting with friends they see less often than their teammates.

Being able to catch up on important work tasks: Athletes obtain this experience by intentionally scheduling time early in the day on a rest day, during which they can complete pressing work tasks (ones that may have been postponed due to sport commitments). Catching up on work allows athletes to remove a "weight from their mind" and removing this "weight" early in the day allows for better quality resting experiences later in the day.

Being able to have a personal life outside of my sport: Athletes can deliberately schedule time on a rest day to participate in personal activities, which enables reduced frustrations that they cannot have a life outside of sport. Thus, this makes them feel more rested.

Tools like the Wakeful Resting Experiences Questionnaire (Table 3) and Current Mental Rest Level Measure (Table 4) are a great step forward for how practitioners can start to provide facilitative interventions for rest and emphasize its importance. Other useful guides are starting to be created as well, initiatives specifically athletes could use to improve their experience without the need for measurement tools from practitioners. For example, Eccles and colleagues (2022) include in their literature review a tool of their own creation in the form of questions athletes can ask themselves to help achieve mental rest outside of training and competition (Table 5). An example question to ask is 'Are you "doing it different"?', which the tool notes as relevant because rest involves a break from tedium in the athletic experience; the tool then provides some suggestions for achieving this experience (e.g., Have you planned to spend some time with different people and following different than normal routines?).

Table 5. Questions for athletes on how to achieve mental rest (Eccles et al., 2022)

Questions athletes can ask themselves to help them rest mentally outside of training and competing.

Question to ask yourself	Why is this question relevant to helping you rest mentally?	What can I do to achieve this resting experience?
Do you have a "switching-off" plan?	Resting involves "switching off" from constantly thinking about sport. Therefore, a key resting experience involves spending time thinking about something other than your sport for a while.	Have you planned to spend some time: a. with people who are not your teammates and coaches? b. in venues that do not include your training facility and where you cannot see your playbook, sport equipment, and apparel? c. without viewing sport-related media and TV?
Have you arranged a "quiet zone"?	Resting involves giving your brain a break from thinking hard. Therefore, a key resting experience involves "doing not much slowly".	Have you planned to spend time: a. alone or with close friends or family with whom you can be yourself? b. doing activities that are fun and mean you do not need to think very hard (e.g., a favorite TV show)? c. in a relaxed venue (e.g., bed, room, home, café) with few distractions?
Have you scheduled your "me time"?	Resting involves giving you a break from having your day structured and scheduled by someone else. Therefore, a key resting experience involves deciding what you want do (or not do) and exactly when, where, and for how long you want to do it (or not do it).	Have you planned to spend some time: a. doing exactly what you want, where you don't need to consider others' needs? b. when you can indulge the real you? c. when it's just fine to feel that you are doing nothing "useful" at all?
Are you "doing it different"?	Resting involves a break from all the tedious aspects of being an athlete: same people, same gym, same schedule, same food, same bedtime, every day, all week, for weeks at a time. Therefore, a key resting experience involves enjoying some variety in your life.	Have you planned to spend some time: a. following different (i.e., from normal) routines and travel routes? b. with different people? c. eating different food? d. in different venues and locations?

Future Directions

Further research in this area has aim to test the validity and generalizability of Eccles and Kazmier's (2019) proposed model with other sport and performance populations. Because this model is so new, there is still much to discover, explore, and understand about rest and the wakeful resting experience from a biopsychosocial perspective. Expanding on the research in this area would help to develop interventions for implementing effective rest protocols and programs for athletes, practitioners, and high-performance workers. This could be beneficial for several reasons and touch several areas of application and research such as: Injury recovery/prevention, burnout/overtraining prevention, optimizing recovery from physiological and psychological stress, optimizing work performance (e.g., tactical populations, medical populations), optimize sport performance and recovery, and in increasing retention in learning of cognitive and motor skills.

APPENDIX 2. INFORMED CONSENT

University of Kentucky Consent to Participate in Research
Research Title: *The Psychosocial Aspects of Rest in Athlete*
Protocol #: *9260*
Researcher: *Morgan Findley, MS, CES from the University of Kentucky*
Contact Information: *(419) 889-8697 or mfi260@uky.edu*
Faculty Advisor: *Ashley Samson, PhD, CMPC*

Purpose, Procedure, and Duration:

We are researchers from the University of Kentucky inviting you to participate in an online survey. We want to learn more about athletes' perceptions of rest from a psychological/sociological perspective and understand the frequency to which athlete's feel they are able to rest during their in-season and off-season.

If you agree to participate in our study, you will be asked to fill out the online survey in the pages following. The survey includes an informed consent (which must be agreed to before completing the survey), demographic information, and then three sections of questions on rest (general agreeance on rest, frequency of rest in the in-season, and frequency of rest in the off-season). The online survey will take about 15 minutes to complete. We expect at least 40 people to respond.

Eligibility:

You must meet the following requirements to participate in this research study:

- *Currently participate in a women's sport for your university*
- *18 years old or older*
- *University in which you attend must be in the United States*

Benefits:

You may not benefit personally from being in this study, but your answers could help us understand more about how athletes are able to more optimally rest, which might allow for the creation of interventions to help athletes improve on their performance, wellbeing, and injury prevention.

Risks:

Some of our questions may make you feel uncomfortable or upset, but you can skip any question you don't want to answer. You can also stop the survey at any time.

We will use Qualtrics to collect your responses. They may have Terms of Service and Privacy policies outside of the control of the University of Kentucky that allows them to use your data for other purposes. We will make every effort to safeguard your data. However, we cannot guarantee the security of data obtained via the internet.

Alternative Opportunities:

We know of no alternative except not to participate in our study.

Privacy and Future Use:

Your responses to the research survey are anonymous. That means we won't know which responses are yours. We won't collect names, internet addresses, email addresses, or any other identifiable information.

We may use the anonymous responses in future research or share them with other researchers.

Complaints or Concerns:

If you have questions about the study, please contact the researcher using the contact information provided above.

If you have complaints or concerns about your rights as a research volunteer, you can contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

Thank you for taking the time to consider our study. You do not have to participate in our study, but we hope you will. To ensure your responses will be included in our study, please complete the survey by February 15th, 2024.

Please select an option below to indicate you read this information and you wish to take the survey:

1. I agree to be in this study
2. I don't want to be in this study

APPENDIX 3. SURVEY INSTRUMENT

	Background information									
	Age									
	Year in school									
	What is your principle sport?									
	What is the name of your university?									
	Are you currently in-season or in off-season									
	What does "rest" mean to you as a student-athlete?									
	Note, this is the only time we are going to ask you to type a response. Please give us at least a sentence response if applicable to you.									
	Defining Rest from the Psychosocial Perspective									
	To what extent do you agree or disagree with the descriptions of being WELL rested:									
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Feeling "fresh"	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
2	Valuing and appreciating my sport	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
3	Feeling highly motivated to engage in my sport	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
4	Applying a lot of effort to my sport	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
5	Not enjoying my sport very much	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
	Understanding Wakeful Resting Experiences									
	To what extent do you agree or disagree with the following descriptions as being restful experiences in your free time:									
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
6	Spending time thinking about something other than your sport	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
7	Getting a break from doing things that require you to "think hard"	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
8	Feeling free from obligations and commitments (e.g., from your sport, from studying, from a job) so that you could do exactly what you wanted	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
9	Doing something different from your everyday routine (e.g., spending time with different people, eating different foods, going to different places, walking and/or driving different routes)	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
10	Catching up on work tasks that need doing (e.g., paperwork, chores, study)	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
11	Engaging in personal activities and areas of life outside of your sport (e.g., family, friends, relationships & hobbies)	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
	Identifying Restful Activities									
	To what extent do you agree or disagree with the following descriptions as being restful activities:									
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
12	Spending time with people who are not your teammates or coaches	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
13	Spending time in venues that do not include your training facility and where you cannot see your playbook, sport equipment, and apparel	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
14	Spending time viewing media and TV related to my sport	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
15	Spending time alone or with close friends or family with whom you can be yourself	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
16	Spending time doing activities that are fun and mean you do not need to think very hard (e.g., a favorite TV show)	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
17	Spending time in a relaxed venue (e.g., bed, room, home, cafe) with few distractions	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
18	Spending time doing exactly what you want, where you don't need to consider others' needs	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
19	Spending time when you can indulge the "real you"	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
20	Spending time feeling fine to do nothing "useful" at all	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
21	Spending time following different (i.e., from normal) routines and travel routes	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
22	Spending time with different people than usual	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
23	Spending time eating different food than usual	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree
24	Spending time in different venues and locations than usual	Strongly disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree

	In-Season Frequency of Rest									
	In your free time during your average ***in-season*** , how often are you able to achieve each of these restful experiences?									
		1	2	3	4	5	6	7	8	9
25	Spending time thinking about something other than your sport	Never		Rarely		Sometimes		Often		Always
26	Getting a break from doing things that require you to "think hard"	Never		Rarely		Sometimes		Often		Always
27	Feeling free from obligations and commitments (e.g., from your sport, from studying, from a job) so that you could do exactly what you wanted	Never		Rarely		Sometimes		Often		Always
28	Doing something different from your everyday routine (e.g., spending time with different people, eating different foods, going to different places, walking and/or driving different routes)	Never		Rarely		Sometimes		Often		Always
29	Catching up on work tasks that need doing (e.g., paperwork, chores, study)	Never		Rarely		Sometimes		Often		Always
30	Engaging in personal activities and areas of life outside of your sport (e.g., family, friends, relationships & hobbies)	Never		Rarely		Sometimes		Often		Always
	In your free time during your average ***in-season*** , how often are you able to participate in each of these restful activities?									
		1	2	3	4	5	6	7	8	9
31	Spending time with people who are not your teammates or coaches	Never		Rarely		Sometimes		Often		Always
32	Spending time in venues that do not include your training facility and where you cannot see your playbook, sport equipment, and apparel	Never		Rarely		Sometimes		Often		Always
33	Spending time viewing media and TV related to my sport	Never		Rarely		Sometimes		Often		Always
34	Spending time alone or with close friends or family with whom you can be yourself	Never		Rarely		Sometimes		Often		Always
35	Spending time doing activities that are fun and mean you do not need to think very hard (e.g., a favorite TV show)	Never		Rarely		Sometimes		Often		Always
36	Spending time in a relaxed venue (e.g., bed, room, home, cafe) with few distractions	Never		Rarely		Sometimes		Often		Always
37	Spending time doing exactly what you want, where you don't need to consider others' needs	Never		Rarely		Sometimes		Often		Always
38	Spending time when you can indulge the "real you"	Never		Rarely		Sometimes		Often		Always
39	Spending time feeling fine to do nothing "useful" at all	Never		Rarely		Sometimes		Often		Always
40	Spending time following different (i.e., from normal) routines and travel routes	Never		Rarely		Sometimes		Often		Always
41	Spending time with different people than usual	Never		Rarely		Sometimes		Often		Always
42	Spending time eating different food than usual	Never		Rarely		Sometimes		Often		Always
43	Spending time in different venues and locations than usual	Never		Rarely		Sometimes		Often		Always
	Off-Season Frequency of Rest									
	In your free time during your average ***off-season*** , how often are you able to achieve each of these restful experiences?									
		1	2	3	4	5	6	7	8	9
44	Spending time thinking about something other than your sport	Never		Rarely		Sometimes		Often		Always
45	Getting a break from doing things that require you to "think hard"	Never		Rarely		Sometimes		Often		Always
46	Feeling free from obligations and commitments (e.g., from your sport, from studying, from a job) so that you could do exactly what you wanted	Never		Rarely		Sometimes		Often		Always
47	Doing something different from your everyday routine (e.g., spending time with different people, eating different foods, going to different places, walking and/or driving different routes)	Never		Rarely		Sometimes		Often		Always
48	Catching up on work tasks that need doing (e.g., paperwork, chores, study)	Never		Rarely		Sometimes		Often		Always
49	Engaging in personal activities and areas of life outside of your sport (e.g., family, friends, relationships & hobbies)	Never		Rarely		Sometimes		Often		Always
	In your free time during your average ***off-season,*** how often are you able to participate in each of these restful activities?									
		1	2	3	4	5	6	7	8	9
50	Spending time with people who are not your teammates or coaches	Never		Rarely		Sometimes		Often		Always
51	Spending time in venues that do not include your training facility and where you cannot see your playbook, sport equipment, and apparel	Never		Rarely		Sometimes		Often		Always
52	Spending time viewing media and TV related to my sport	Never		Rarely		Sometimes		Often		Always
53	Spending time alone or with close friends or family with whom you can be yourself	Never		Rarely		Sometimes		Often		Always
54	Spending time doing activities that are fun and mean you do not need to think very hard (e.g., a favorite TV show)	Never		Rarely		Sometimes		Often		Always
55	Spending time in a relaxed venue (e.g., bed, room, home, cafe) with few distractions	Never		Rarely		Sometimes		Often		Always
56	Spending time doing exactly what you want, where you don't need to consider others' needs	Never		Rarely		Sometimes		Often		Always
57	Spending time when you can indulge the "real you"	Never		Rarely		Sometimes		Often		Always
58	Spending time feeling fine to do nothing "useful" at all	Never		Rarely		Sometimes		Often		Always
59	Spending time following different (i.e., from normal) routines and travel routes	Never		Rarely		Sometimes		Often		Always
60	Spending time with different people than usual	Never		Rarely		Sometimes		Often		Always
61	Spending time eating different food than usual	Never		Rarely		Sometimes		Often		Always
62	Spending time in different venues and locations than usual	Never		Rarely		Sometimes		Often		Always

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