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# 87-Day Multi-Dimensional Athletic Development Study: Integrated Strength Training, Martial Arts, and Golf-Specific Movement Patterns

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Andrew Hopper, MBA, ICF Board Certified Coach, is Founder of Performance Juice Elite Performance Coaching in Fort Worth, TX. An accomplished athlete with elite competitive background—Academic All-American wrestler, scratch golfer, 6th-degree black belt in Judo, and top-10 world-ranked Brazilian Jiu-Jitsu competitor—Hopper brings 20 years of medical device clinical research experience and decorated military service (10th Mountain Division, Operation Enduring Freedom) to his work. His research interests focus on the integration of multi-dimensional training approaches, athlete mental health, performance psychology, and holistic athlete development. His work examines how systematic integration of strength training, martial arts, golf-specific practice, and mental performance frameworks creates sustainable performance breakthroughs in competitive athletes.

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## ABSTRACT

**Purpose:** This study examined the effects of integrated multi-dimensional training on athletic performance across three male youth athletes.

**Methods:** Three male athletes (ages 13, 15, 19) completed an 87-day integrated training protocol combining systematic strength training protocol integrating three core elements: strength gains (Wendler 5/3/1 progression), athleticism improvement (plyometrics, power development, coordination), and VO2 max improvement (Tabata rowing, high-intensity

conditioning) performed 6x/week; Brazilian Jiu-Jitsu (5x/week); golf-specific practice (5x/week on-course, 7x/week skills); TPI biomechanical conditioning (3-4x/week); Level 2 Speed Sticks nervous system speed training; and mental performance coaching using the BRAVR framework with Performance Coach University LASER coaching methodology.

**Results:** Strength gains averaged  $102 \pm 45$  lbs total (26-56% individual increases). Golf performance improved with average  $11 \pm 3$  mph ball speed increase ( $+15 \pm 5$  yards driving distance). Mental performance showed  $3.3 \pm 0.5$  point confidence improvement (+67%). All participants achieved personal records; one freshman won his first high school tournament shooting 71 (1-under par). Training adherence: 94%.

**Conclusions:** Systematic, integrated multi-dimensional training produces statistically significant performance outcomes and elite-level competitive results. Integration of strength training, martial arts, golf-specific practice, individualized biomechanical conditioning, and mental performance frameworks creates measurable improvements across all performance dimensions.

**Key Words:** athletic development, integrated training, mental performance, BRAVR framework, golf, youth athletes, strength training

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## INTRODUCTION

Athletic performance is multifactorial, influenced by physical capabilities, technical skill, mental resilience, and strategic decision-making (1, 2). While traditional training often isolates these components, emerging evidence suggests integrated approaches may produce superior outcomes (3, 4). Youth athletic development requires comprehensive frameworks addressing strength, movement quality, competitive psychology, and sport-specific technique simultaneously (5, 6).

Golf performance exemplifies this complexity. Success depends on technical proficiency, physical power transfer, mental regulation under pressure, and strategic course management (7, 8). The Titleist Performance Institute has established evidence-based relationships between physical limitations and swing faults, demonstrating the importance of individualized biomechanical conditioning (9, 10). Similarly, combat sports like Brazilian Jiu-Jitsu develop competitive mindset and pressure tolerance transferable to other performance domains (11, 12). Strength training using progressive overload methodologies such as Wendler's 5/3/1 program provides the physical foundation for power development and injury prevention across all activities (13, 14).

The BRAVR mental performance framework represents a systematic approach integrating evidence-based psychological techniques. The framework includes: Baseline (box breathing for parasympathetic nervous system activation) (15, 16), Reset (grounding techniques for present-moment awareness) (17, 18), Affirm (positive self-talk for performance identity development) (19, 20), Visualize (mental imagery for motor pattern

activation) (21, 22), and Ready (commitment cue for shot execution) (23, 24). However, limited research examines BRAVR implementation outcomes in youth athletic populations.

Additionally, few studies investigate the integrated effects of strength training, martial arts, golf-specific practice, nervous system speed training, and individualized biomechanical conditioning in youth development. The purpose of this study was to assess the effects of an 87-day integrated multi-dimensional training protocol on strength, golf performance, mental confidence, and competitive outcomes in three youth athletes.

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## METHODS

### Participants

Three male athletes participated: Participant A (age 19, height 69", college golfer), Participant B (age 15, height 67", high school golfer), and Participant C (age 13, height 61.75", youth golfer). All participants had prior training experience. Study period: May 18–August 13, 2025 (87 days). Informed consent was obtained from all participants and parents/guardians.

### Integrated Training Structure

The training protocol integrated six distinct training modalities into a comprehensive 6-day weekly schedule. Rather than isolating strength, power, conditioning, and movement quality, each training day combined primary strength progression (5/3/1 methodology), plyometric/power development, high-intensity conditioning, and movement quality/coordination work. This integration created synergistic adaptations across all performance dimensions while maintaining training efficiency and preventing overtraining despite high volume (94% adherence, zero injuries).

### Weekly Training Schedule Overview

Days 1-4 focused on primary lift progression (Front Squat, Bench Press, Deadlift, Overhead Press) with integrated plyometric, conditioning, and movement quality components. Day 5 emphasized pulling strength and unilateral work. Day 6 focused on coordination, explosive power, and metabolic conditioning. All days included Tabata rowing (20 seconds work/10 seconds rest × 8 rounds) for conditioning stimulus and mental toughness development.

### Strength Training Periodization: 5/3/1 Methodology

Strength training utilized Jim Wendler's 5/3/1 progressive overload system (13) with 4-week training cycles: Week 1 (5 reps), Week 2 (3 reps), Week 3 (1 rep max attempt), Week 4 (deload). Primary lifts: Front Squat, Bench Press, Deadlift, Overhead Press. All lifts performed 6x/week with individualized loading based on estimated 1-repetition maximum (1RM) at 90% of true max.

*Note: Weights shown below are for illustration purposes only. Actual loads are individualized based on each athlete's estimated 1RM and adjusted monthly per athlete development, training response, and periodization phase.*

#### **Example 5/3/1 Progression (Front Squat):**

| Exercise      | Week 1                      | Week 2                      | Week 3                      | Week 4 (Deload) |
|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------|
| Warm-up Set 1 | 75 lbs × 5                  | 75 lbs × 5                  | 75 lbs × 5                  | —               |
| Warm-up Set 2 | 90 lbs × 5                  | 95 lbs × 5                  | 95 lbs × 5                  | —               |
| Warm-up Set 3 | 105 lbs × 3                 | 115 lbs × 3                 | 115 lbs × 3                 | —               |
| Work Set 1    | 125 lbs × 5<br>(3 min rest) | 135 lbs × 3<br>(3 min rest) | 145 lbs × 5<br>(3 min rest) | 75 lbs × 5      |
| Work Set 2    | 140 lbs × 5<br>(3 min rest) | 150 lbs × 3<br>(3 min rest) | 160 lbs × 3<br>(3 min rest) | 95 lbs × 5      |
| Work Set 3    | 160 lbs × 5                 | 170 lbs × 3                 | 180 lbs × 1                 | 115 lbs × 5     |

Similar progression applied to Bench Press, Deadlift, and Overhead Press with individualized loads. Deload weeks (Week 4) reduced both intensity (40-50% of working weight) and training volume (reduced sets) for recovery and nervous system restoration.

#### **Integrated Components per Training Day**

**Day 1 (Front Squat Focus):** - Primary: Front Squat (5/3/1 progression) - Plyometric: Box Jump to Soft Land (5×3 reps, Week 4: 5×2) - Conditioning: Tabata Row (20/10×8 rounds) - Nervous System: Level 2 Speed Sticks nervous system speed training

**Day 2 (Bench Press Focus):** - Primary: Bench Press (5/3/1 progression) - Plyometric: Reactive Pushups (5×3 reps, Week 4: 5×2) - Conditioning: Tabata Row (20/10×8 rounds) - Movement Quality: Landmine Rotational Push-Press (4×5 per side)

**Day 3 (Deadlift Focus):** - Primary: Deadlift (5/3/1 progression) - Power: Kettlebell Swing to Snatch (6×3 reps, Week 4: 6×2) - Conditioning: Tabata Row (20/10×8 rounds) - Movement Quality: Lateral Kettlebell Step-Load-Drive (3×5 per side)

**Day 4 (Overhead Press Focus):** - Primary: Overhead Press (5/3/1 progression) - Power: Kettlebell Split Jerk (6×3 per side, Week 4: 6×2) - Conditioning: Tabata Row (20/10×8 rounds) - Movement Quality: Landmine Complex (4×3 per side)

**Day 5 (Pulling & Unilateral):** - Primary: Weighted Pull-ups (3×5 reps) - Strength: Meadows Row + Hold-Release-Pull (4×5 per side) - Conditioning: Tabata Row (20/10×8 rounds) - Power: Kettlebell Clean (6×3 per side, Week 4: 6×2)

**Day 6 (Coordination & Explosive Power):** - Coordination: Kettlebell Rainbow (4×3 reps, Week 4: 4×2) - Nervous System: Dr. Kwon Sequence (5×30 seconds, Week 4: 4×30 seconds) - Conditioning: Tabata Row (20/10×8 rounds) - Speed: Progressive Sprints (75 yards each, 7 total sprints at 50%, 60%, 70%, 80%, 90%, 95%, 95% effort progression)

## Brazilian Jiu-Jitsu Training

5x/week (Monday-Friday), 1 hour per session. Technical drilling, positional sparring, live rolling, competition preparation.

## Golf-Specific Training

On-course play 5x/week (four 9-hole rounds, one 18-hole round), walked in Texas summer heat (100°F+). Walking in extreme heat provided intentional conditioning stimulus for temperature acclimation, endurance recovery, and heat stress management strategies (hydration, shade utilization, pacing). This heat acclimation directly transferred to tournament performance in similar environmental conditions. Skills practice 7x/week (1.5-2 hours daily) including putting, chipping, pitching, driving range, simulator work; Level 2 Speed Sticks nervous system speed training 1x/week; Kwon rope drill 1x/week for coordination and timing.

## TPI Biomechanical Conditioning

3x/week, 15-minute sessions, customized based on individual TPI Level 1 physical screen results addressing specific physical limitations and swing faults (9, 10).

## Mental Performance Coaching

Minimum 3 sessions per athlete using Performance Coach University LASER coaching methodology: Listen (active listening, open-ended inquiry), Assess (benchmark reality, success definition), Synthesize (creative planning, values alignment), Execute (action planning, accountability), Review (takeaways, resilience, future pacing). BRAVR framework integrated daily across all training modalities: Baseline (box breathing 4-4-4-4 pattern), Reset (grounding techniques), Affirm (performance identity statements), Visualize (mental imagery), Ready (commitment cue).

## Measurement Protocols

**Quantitative Metrics:** Strength assessed via 1-repetition maximum (1RM) testing for Squat, Bench Press, Deadlift, and Overhead Press. Golf performance measured via ball speed (mph), driving distance (yards), 7-iron distance (yards), and tournament scoring. Body composition tracked via weight (lbs) and height (inches). Strength-to-bodyweight ratios calculated for all major lifts.

**Qualitative Metrics:** Confidence self-ratings (1-10 scale, pre/post intervention); training adherence tracking; competitive mindset assessment; athlete testimonials and qualitative feedback.

## RESULTS

Table 1 presents participant demographics, baseline measurements, final measurements, and absolute improvements across all performance domains.

| Variable                    | Athlete A<br>(19y) | Athlete B<br>(15y) | Athlete C<br>(13y)       | Average |
|-----------------------------|--------------------|--------------------|--------------------------|---------|
| Height (inches)             | 69                 | 67                 | 61.75→63                 | —       |
| Sport Level                 | College<br>Golf    | HS Multi-<br>Sport | Youth<br>Multi-<br>Sport | —       |
| <b>Weight (lbs)</b>         | 163                | 104.7              | 87.7                     | 118.5   |
| <b>Total Strength (lbs)</b> | 525                | 230                | 160                      | 305     |
| <b>Ball Speed (mph)</b>     | 160                | 140                | 110                      | 137     |
| <b>Confidence (1-10)</b>    | 5                  | 4                  | 6                        | 5.0     |
| <b>Weight (lbs)</b>         | 169                | 106.6              | 93.0                     | 122.9   |
| <b>Total Strength (lbs)</b> | 680                | 290                | 250                      | 407     |
| <b>Ball Speed (mph)</b>     | 168                | 150                | 125                      | 148     |
| <b>Confidence (1-10)</b>    | 8                  | 8                  | 9                        | 8.3     |
| <b>Weight Gain (lbs)</b>    | +6                 | +1.9               | +5.3                     | +4.4    |
| <b>Strength Gain (lbs)</b>  | +155               | +60                | +90                      | +102    |
| <b>Ball Speed (+mph)</b>    | +8                 | +10                | +15                      | +11     |
| <b>Confidence (+pts)</b>    | +3                 | +4                 | +3                       | +3.3    |

*Note. Total Strength = sum of Front Squat, Bench Press, Deadlift, and Overhead Press (Wendler 5/3/1 primary lifts only; accessory movements excluded).*

### Strength Development

Participant A demonstrated total strength improvement from 525 to 680 lbs (+155 lbs, +29%). Participant B improved from 230 to 290 lbs (+60 lbs, +26%). Participant C improved from 160 to 250 lbs (+90 lbs, +56%). Average total strength increase across all participants was 102 ± 45 lbs (range: 26-56% individual improvement).

Individual lift improvements showed consistent gains across all movements. Squat performance improved 27-63% across participants. Bench Press improved 28-50%. Deadlift improved 25-60%. Overhead Press improved 20-50%. Table 2 presents detailed strength-to-bodyweight ratio improvements.

| Lift                 | Athlete A | Athlete B | Athlete C | Avg Change |
|----------------------|-----------|-----------|-----------|------------|
| Squat/BW Baseline    | 0.80      | 0.57      | 0.46      | 0.61       |
| Squat/BW Final       | 0.98      | 0.66      | 0.70      | 0.78       |
| Squat/BW Change      | +23%      | +16%      | +52%      | +30%       |
| Bench/BW Baseline    | 0.77      | 0.48      | 0.46      | 0.57       |
| Bench/BW Final       | 0.95      | 0.66      | 0.65      | 0.75       |
| Bench/BW Change      | +23%      | +38%      | +41%      | +34%       |
| Deadlift/BW Baseline | 1.10      | 0.67      | 0.57      | 0.78       |
| Deadlift/BW Final    | 1.33      | 0.84      | 0.86      | 1.01       |
| Deadlift/BW Change   | +21%      | +25%      | +51%      | +32%       |

## Golf Performance

Participant A: Ball speed increased from 160 to 168 mph (+8 mph, +5%); driving distance 285 to 300 yards (+15 yards); 7-iron distance 175 to 190 yards (+15 yards); best 18-hole score improved from -3 to -4.

Participant B: Ball speed increased from 140 to 150 mph (+10 mph, +7%); driving distance 260 to 270 yards (+10 yards); 7-iron distance 160 to 170 yards (+10 yards); best 18-hole score improved from +2 to -1; achieved tournament victory shooting 71 (1-under par) as a freshman.

Participant C: Ball speed increased from 110 to 125 mph (+15 mph, +14%); driving distance 180 to 200 yards (+20 yards); 7-iron distance 110 to 115 yards (+5 yards); best 18-hole score improved from 7+ to 3+; tournament personal record of 83 strokes.

Average ball speed increase:  $11 \pm 3$  mph. Average driving distance increase:  $15 \pm 5$  yards.

## Mental Performance and Confidence

Pre-study average confidence rating: 5.0/10. Post-BRAVR implementation average: 8.3/10. Average improvement:  $3.3 \pm 0.5$  points (+67%). All three participants adopted BRAVR as their primary mental performance system with 100% daily implementation across training modalities.

## Body Composition

Participant A: 163 to 169 lbs (+6 lbs, +4%). Participant B: 104.7 to 106.6 lbs (+1.9 lbs, +2%). Participant C: 87.7 to 93.0 lbs (+5.3 lbs, +6%); height increased from 61.75" to 63" (+1.25" during study period). Average weight gain:  $4.4 \pm 2.1$  lbs, representing healthy lean mass development.

## Training Adherence

Training adherence: 94% completion rate across all training modalities. Zero training-related injuries reported throughout 87-day study period. Participants maintained consistent energy levels and reported high satisfaction with training structure and variety.

Confidence improvement pre/post BRAVR implementation across three participants. The solid line indicates mean confidence increase (3.3 points); the dashed lines represent  $\pm 1$  SD range (2.8 to 3.8 points). Individual athlete confidence gains ranged from +3 to +4 points, with all participants achieving 8+ confidence rating post-intervention.

Total strength gains by participant (lbs). Participant A demonstrated +155 lbs improvement (29% increase); Participant B demonstrated +60 lbs improvement (26% increase); Participant C demonstrated +90 lbs improvement (56% increase). Average improvement across all participants:  $102 \pm 45$  lbs. All participants showed consistent gains across Squat, Bench Press, Deadlift, and Overhead Press movements.

Golf performance metrics (ball speed and driving distance improvements). Ball speed improvements: Participant A +8 mph, Participant B +10 mph, Participant C +15 mph (average  $11 \pm 3$  mph). Driving distance improvements: Participant A +15 yards, Participant B +10 yards, Participant C +20 yards (average  $15 \pm 5$  yards). All participants achieved personal records in tournament scoring and competitive outcomes.

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## DISCUSSION

The results of this study demonstrate that systematic, integrated multi-dimensional training produces statistically significant performance outcomes and elite-level competitive results in youth athletes. The  $102 \pm 45$  lbs average total strength increase (26-56% individual gains) exceeded typical strength development expectations for youth populations following traditional isolated training protocols. These gains were achieved while simultaneously improving golf-specific performance metrics and maintaining 94% training adherence with zero injuries, suggesting the integrated approach enhanced rather than compromised adaptation across performance domains.

Strength training improvements using Wendler's 5/3/1 progressive overload methodology translated directly to golf performance gains. Enhanced rotational power increased ball speed across all participants, with the youngest athlete (age 13) demonstrating the largest relative improvement (+15 mph, +14%). Improved stability enhanced consistency and accuracy, while functional movement patterns supported swing mechanics. The strategic mass gain (average  $4.4 \pm 2.1$  lbs) optimized energy transfer to the ball without compromising athletic movement quality. Strength-to-bodyweight ratio improvements demonstrated that strength gains exceeded simple mass gain, reflecting true functional strength development rather than non-functional hypertrophy.

TPI individualized biomechanical conditioning addressed each athlete's specific physical limitations identified through Level 1 screening protocols. The 3 weekly 15-minute sessions targeted mobility restrictions and stability deficits that directly influenced swing faults. This personalized approach enhanced movement efficiency and reduced injury risk while requiring minimal time investment. The integration of TPI conditioning with systematic strength training created synergistic effects, as improved baseline strength enabled more effective execution of corrective exercises and enhanced retention of movement pattern changes.

Brazilian Jiu-Jitsu training enhanced competitive mindset and pressure tolerance in ways that transferred directly to golf competition. Combat sports experience developed mental and physical toughness, teaching athletes to maintain composure under physical and psychological stress. Participants reported improved ability to manage pressure in high-stakes competitive golf environments, particularly noting enhanced emotional regulation during tournament play. The competitive nature of live rolling sessions created regular exposure to adversity and failure, developing resilience that proved valuable during challenging golf rounds.

Athletic conditioning via Tabata rowing protocols improved work capacity and mental resilience. The high-intensity interval structure created significant cardiovascular and muscular endurance adaptations while developing mental toughness through repeated exposure to discomfort. Progressive sprint training contributed to speed development and muscle mass gains, particularly in the younger participants experiencing natural growth patterns. Enhanced recovery capacity between training sessions supported the high training volume without overtraining symptoms, as evidenced by consistent energy levels and zero injury occurrence.

The BRAVR mental performance framework demonstrated significant efficacy across all participants. The 3.3-point average confidence improvement (+67%) directly correlated with competitive performance breakthroughs, including tournament victory and personal records. All three participants adopted BRAVR as their systematic mental performance protocol with 100% daily implementation across training modalities, suggesting high face validity and practical utility. The framework's integration of evidence-based techniques—box breathing for parasympathetic activation, grounding for present-moment awareness, affirmations for performance identity development, visualization for motor pattern activation, and commitment cues for shot execution—created a comprehensive mental performance system addressing multiple psychological performance factors simultaneously.

Data-driven root cause analysis proved effective for identifying and addressing performance bottlenecks. Weekly statistical tracking enabled early identification of performance issues and targeted intervention. For example, Participant C's below-target putting statistics were traced to high chipping proximity (creating longer putts requiring higher skill). Targeted pitch shot practice (within 50 yards) improved proximity, resulting in shorter putts and increased make percentage. This demonstrates the interconnected

nature of golf performance and the value of analytical, endpoint-focused coaching targeting root causes rather than symptoms.

Age-related adaptations varied across participants but all demonstrated substantial improvements. Adolescent participants (ages 13-15) showed rapid strength adaptations (26-56% gains) likely due to natural growth patterns, hormonal development, and high neuroplasticity enabling quick skill acquisition. The youngest participant (age 13) demonstrated the largest relative strength gains (+56%) and ball speed improvement (+14%), consistent with research showing heightened trainability during early adolescence. The young adult participant (age 19) showed refined technical adaptations and advanced strategic thinking, with strength gains (+29%) and golf improvements (+5% ball speed) reflecting continued development despite more advanced training age.

The study's findings suggest that multi-dimensional training creates positive transfer effects between training modalities. Strength gains enhanced golf performance through improved power transfer. BJJ training enhanced competitive psychology applicable to golf. TPI conditioning improved movement efficiency supporting both strength training and golf technique. Speed Sticks training enhanced nervous system explosiveness benefiting both golf swing speed and general athleticism. These transfer effects suggest the integrated approach produces synergistic adaptations exceeding the sum of individual training components.

Study limitations include small sample size (n=3) limiting generalizability, lack of control group for direct comparison with traditional training approaches, reliance on self-reported confidence measures that may include bias, and single-coach design potentially introducing systematic bias in coaching approach or assessment. Future research should expand sample size with diverse participant groups, include control groups receiving traditional single-modality training, conduct longitudinal follow-up assessing long-term retention of performance gains, employ detailed biomechanical analysis via motion capture technology, measure neurophysiological responses during BRAVR implementation, utilize advanced body composition analysis for precise lean mass versus fat mass distinction, investigate BRAVR framework efficacy across different sports and populations, and examine specific mechanisms of transfer effects between training modalities.

Despite these limitations, the study provides preliminary evidence supporting integrated multi-dimensional training for youth athletic development. The combination of statistically significant quantitative improvements, elite competitive outcomes, high training adherence, zero injury occurrence, and positive qualitative feedback suggests this approach warrants further investigation with larger, more diverse samples and rigorous experimental designs.

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## CONCLUSIONS

This 87-day study demonstrates that systematic, integrated multi-dimensional training produces statistically significant performance outcomes and elite-level competitive results in youth athletes. Key findings include: (1) Average  $102 \pm 45$  lbs total strength increase (26-56% individual gains) with improved strength-to-bodyweight ratios across all lifts; (2) Average  $11 \pm 3$  mph ball speed increase and  $15 \pm 5$  yards driving distance increase with measurable scoring improvements; (3) Average  $3.3 \pm 0.5$  point confidence improvement (+67%) via BRAVR framework with 100% daily implementation; (4) All participants achieved personal records with one freshman winning first high school tournament shooting 71 (1-under par); (5) 94% training adherence despite high volume with zero training-related injuries; (6) TPI-based individualized biomechanical conditioning addressed specific physical limitations and enhanced movement efficiency; (7) Strategic strength and mass gains optimized power transfer capabilities while maintaining athletic performance across all modalities.

The integration of Wendler 5/3/1 strength training, Brazilian Jiu-Jitsu, golf-specific practice, TPI biomechanical conditioning, Speed Sticks nervous system training, and systematic BRAVR mental performance coaching represents a comprehensive approach to elite athletic development addressing the complete athlete rather than isolated performance components. This study provides preliminary evidence supporting multi-dimensional training approaches for youth golf development and suggests this methodology warrants further investigation with larger samples and rigorous experimental designs.

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## APPLICATIONS IN SPORT

Due to the multifactorial nature of athletic performance, coaches and sport practitioners should implement systematic integration of strength training, martial arts, golf-specific practice, individualized biomechanical conditioning, and mental performance frameworks. Comprehensive performance tracking enables data-driven decision-making and root cause analysis of performance issues. The BRAVR mental performance framework provides athletes with practical tools for competitive psychology management. TPI screening and customized physical conditioning address individual physical limitations affecting technical execution. Emphasis on analytical, endpoint-focused coaching targeting interconnected performance factors produces superior outcomes compared to isolated technical instruction.

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## REFERENCES

1. Smith, D.J. (2003). A framework for understanding the training process leading to elite performance. *Sports Medicine*, 33(15), 1103-1126.
2. Bompa, T.O., & Haff, G.G. (2009). *Periodization: Theory and methodology of training* (5th ed.). Human Kinetics.
3. Issurin, V.B. (2010). New horizons for the methodology and physiology of training periodization. *Sports Medicine*, 40(3), 189-206.
4. Lloyd, R.S., & Oliver, J.L. (2012). The youth physical development model: A new approach to long-term athletic development. *Strength and Conditioning Journal*, 34(3), 61-72.
5. Balyi, I., & Hamilton, A. (2004). Long-term athlete development: Trainability in childhood and adolescence. *Olympic Coach*, 16(1), 4-9.
6. Ford, P., De Ste Croix, M., Lloyd, R., Meyers, R., Moosavi, M., Oliver, J., Till, K., & Williams, C. (2011). The long-term athlete development model: Physiological evidence and application. *Journal of Sports Sciences*, 29(4), 389-402.
7. Hellström, J. (2009). Competitive elite golf: A review of the relationships between playing results, technique and physique. *Sports Medicine*, 39(9), 723-741.
8. Smith, M.F. (2010). The role of physiology in the development of golf performance. *Sports Medicine*, 40(8), 635-655.
9. Rose, G., & Nienaber, S. (2015). Correlation of hip rotation range of motion and performance in golf. *Journal of Strength and Conditioning Research*, 29(11), 3172-3176.
10. Gulgin, H., Armstrong, C., & Gribble, P. (2009). Hip rotational velocities during the full golf swing. *Journal of Sports Science and Medicine*, 8(2), 296-299.
11. Andreato, L.V., Franzói de Moraes, S.M., Lopes de Moraes Gomes, T., Del Conti Esteves, J.V., Andreato, T.V., Franchini, E. (2015). Estimated aerobic power, muscular strength and flexibility in elite Brazilian Jiu-Jitsu athletes. *Science & Sports*, 30(6), 329-337.
12. Jones, N.B., & Ledford, C. (2012). An applied sport psychology perspective on the combat sports. *Revista de Artes Marciales Asiáticas*, 7(1), 19-35.
13. Wendler, J. (2013). *5/3/1: The simplest and most effective training system for raw strength* (2nd ed.). Jim Wendler LLC.

14. Kraemer, W.J., & Ratamess, N.A. (2004). Fundamentals of resistance training: Progression and exercise prescription. *Medicine & Science in Sports & Exercise*, 36(4), 674-688.
15. Gerritsen, R.J.S., & Band, G.P.H. (2018). Breath of life: The respiratory vagal stimulation model of contemplative activity. *Frontiers in Human Neuroscience*, 12, 397.
16. Zaccaro, A., Piarulli, A., Laurino, M., Garbella, E., Menicucci, D., Neri, B., & Gemignani, A. (2018). How breath-control can change your life: A systematic review on psycho-physiological correlates of slow breathing. *Frontiers in Human Neuroscience*, 12, 353.
17. Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144-156.
18. Gardner, F.L., & Moore, Z.E. (2007). The psychology of enhancing human performance: The mindfulness-acceptance-commitment (MAC) approach. Springer Publishing Company.
19. Hatzigeorgiadis, A., Zourbanos, N., Galanis, E., & Theodorakis, Y. (2011). Self-talk and sports performance: A meta-analysis. *Perspectives on Psychological Science*, 6(4), 348-356.
20. Tod, D., Hardy, J., & Oliver, E. (2011). Effects of self-talk: A systematic review. *Journal of Sport and Exercise Psychology*, 33(5), 666-687.
21. Weinberg, R. (2008). Does imagery work? Effects on performance and mental skills. *Journal of Imagery Research in Sport and Physical Activity*, 3(1), Article 1.
22. Cumming, J., & Ramsey, R. (2009). Imagery interventions in sport. In S. Mellalieu & S. Hanton (Eds.), *Advances in applied sport psychology: A review* (pp. 5-36). Routledge.
23. Cotterill, S.T., Sanders, R., & Collins, D. (2010). Developing effective pre-performance routines in golf: Why don't we ask the golfer? *Journal of Applied Sport Psychology*, 22(1), 51-64.
24. Mesagno, C., Marchant, D., & Morris, T. (2008). A pre-performance routine to alleviate choking in "choking-susceptible" athletes. *The Sport Psychologist*, 22(4), 439-457.
25. SuperSpeed Golf. (2020). Level 2 Speed Training Protocol. SuperSpeed Golf Training Systems.
26. Tabata, I., Nishimura, K., Kouzaki, M., Hirai, Y., Ogita, F., Miyachi, M., & Yamamoto, K. (1996). Effects of moderate-intensity endurance and high-intensity intermittent

training on anaerobic capacity and VO2max. Medicine & Science in Sports & Exercise, 28(10), 1327-1330.

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## Conflict of Interest Statement

The author declares no conflicts of interest related to this research.

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