Dr. Christa A. Davis

**Title:** Express the True You! KRUMP Street Dance, Helping At-Risk Youth

**Abstract:** Many youth in today’s society need a healthy outlet for energy, emotion, and stress. Research demonstrates that only 27.1% of high school students get the recommended amount of daily physical activity (CDC, 2013). Our research study addresses both issues - via the use of cutting edge materials on the street dance KRUMP as well as the implementation of the instructional model B.L.I.S.S., designed to teach new learners in an emotionally safe environment. Special attention is focused on strategies that can build personal confidence, thus encourage individuality and self-expression. Everyone can KRUMP if they are willing to try. It simply involves the willingness to be “your best YOU”. Instructional insights are drawn from qualitative research conducted in Los Angeles, Seattle, and personal workshops with individuals deep inside the KRUMP world. Current quantitative research with the Northwest Children’s Home (NCH) richly informs the KRUMP teaching methods. NCH is a residential, behavioral and educational treatment facility for extremely at-risk youth. It provides an ideal setting to study the impact of KRUMP and sheds new light on best-practice instructional strategies for this population and others as well. Our primary contact, “Demolition Crew”, has the mission of “demolishing all obstacles”. This research endeavors to teach educators how to impart this ideal, thus provide a healthy, physically active outlet for excess energy, stifled emotion, and debilitating stress.

Kristy A. Johnson MS, RN, PCCN, CNE

**Title:** Living with a Complex Congenital Heart Defect During Emerging Adulthood

**Abstract:** Emerging adulthood (EA) is a unique developmental stage worth exploring within the context of social functioning and complex congenital heart disease. Background: Previous research demonstrates that adults with CHD (ACHD) face psychological barriers, despite an improved lifespan. However, little is known about the issues faced during the EA developmental period (age 18-25); recognizing their unique challenges, expected developmental milestones, and quality of life (QOL) in the presence of a pediatric heart condition. The purpose of this study was to examine perceived QOL for EAs with complex CHD. Methods: Using a mixed methods approach, seven individuals (age 24-25) who had undergone at least two operative repairs for CHD early in their life, completed four standardized questionnaires followed by a semistructured telephone interview. Results: Participants’ narratives revealed one of three stories/themes. Mean scores on the SF-36, CDSE, MUIS, and Basic Needs’ scales varied but aligned with their narratives. Predominant areas of concern involved vitality, emotional wellbeing, and autonomy. Implications: The findings can be used to help develop clinical strategies that promote healthy transitions for emerging young adults with CHD. Conclusions: The results reflect the challenges and uncertainties these individuals face beyond the physical status of their condition. Therefore, concerns related to their stage in life and ability to secure long-term decisions necessitate EA-focused cardiovascular care.

Dr. Timothy Lynch

**Title:** Temp to Perm: Stacking the Electoral Deck Through U.S. Senate Appointments?

**Abstract:** One concern with allowing governors to appoint replacements for U.S. Senate vacancies is that appointees may have an advantage over their competition in seeking election. Another is that governors may use their power to further their own political ambitions. This investigation explores whether an electoral benefit is conferred through receiving or making an appointment. The analysis provides insight into how gubernatorial appointments shape electoral outcomes for quasi-incumbents and the Senate’s membership. Notably, the results reveal an electoral boost for representatives who are appointed prior to making a run for the Senate. While the results demonstrate that some appointees gain an advantage by receiving appointments, governors who run for Senate do not experience an electoral benefit from making an appointment.

Dr. Pete Van Mullem

**Title:** Examining the Career Path to Collegiate Head Coach

**Abstract:** The career advancement and professional development of coaches is contingent on a variety of factors including but not limited to, playing experience, access to resources, mentors, and interaction with other coaches (Nash & Sproule, 2011). This session will examine the career path of NABC member head men’s basketball coaches (N = 344) from first coaching position to collegiate head coach by providing insight on the various steps coaches have taken to elevate their coaching careers.
Jessica Savage, M.S., CSCS C. Orlandi, K. Ulmer

**Title:** The Effect of Plyometric Training on Muscle Activation of Quadriceps and Hamstrings in Female Athletes

**Abstract:** The purpose of this study was to determine the effect of a 6-week plyometric training intervention on magnitude of muscle activation of the quadriceps and hamstrings in female collegiate athletes. METHODS: 10 female participants, aged 18-22, all members of a women’s college basketball team, participated in this study. Prior to any testing, participants underwent a familiarization training session where 5-8 jump landing tasks were performed. Electromyography (EMG) was used to record magnitude of muscle activation for both the right and left vastus lateralis (VL), vastus medialis (VM), biceps femoris (BF), and semitendinosus (SEM), during a jump landing task from a plyometric box 63 cm in height, prior to and following the 6-week training intervention. During the 6-week training intervention, participants engaged in approximately 15 minutes of single and double-leg plyometric exercise, three days per week. Changes in magnitude of muscle activation for the right VL, VM, BF, SEM and left VL, VM, BF, SEM were analyzed using paired T-tests with a significance value set at p<.05. RESULTS: No statistically significant increases (p>.05) in magnitude of muscle activation were seen across any of the muscles (right VL, VM, BF, SEM; left VL, VM, BF, SEM) following the 6-week plyometric training intervention. However, increases in magnitude of muscle activation were seen in the following: left VM (887.46 ± 423.637) increase of 16.6%, left BF (434.3 ± 157.682) increase of 12.3%, and left SEM (543.29 ± 217.057) increase of 28.5%. CONCLUSION: Results from the EMG data suggest that a 6-week plyometric training intervention may not induce statistically significant increases in magnitude of muscle activation in female collegiate athletes. 90% of the participants identified their right leg as the dominant leg, and increases in magnitude of muscle activation were seen in the left VM, BF, and SEM, suggesting the non-dominant leg may benefit most from plyometric training.

Amanda L. Van Lanen, Ph.D.

**Title:** Perfect Apples, Safe Apples?: Consumers’ Impact on Industrial Pesticide Use in Washington Apple Orchards, 1920-1930

**Abstract:** From their beginnings in the late nineteenth century, orchards in central Washington’s irrigated deserts were intended for commercial purposes. While promotional brochures boasted that the natural environment was well suited for apple production, in reality, creating the “perfect” apple required pesticides, such as the inexpensive and widely used lead arsenate. Growers and domestic consumers generally considered pesticides to be safe, and state regulations required their use to protect the industry from devastating infestations.

By the 1920s, British consumers began to express concern about arsenic levels. Tests in the mid 1920s showed that American apples had arsenic levels in excess of the .01 grains per pound allowed by British regulations. Western apples grown by irrigation had the highest concentrations because they were not washed by rain during the growing season.

In response to test results, Great Britain threatened to ban American apples unless arsenic levels decreased. The pressures of global market connections forced local growers to reevaluate their practices and lower arsenic residue on all fruit produced for all markets by washing apples before shipment. Although the pressures of global market connections created a safer product for consumers, they had little impact on growers’ local environmental practices as growers could not reduce pesticide usage and still grow a standardized product.