

NKU Faculty Research, Scholarship and Creative Activity Highlights

VOLUME 3 // NUMBER 1

ALYSSA APPELMAN

Associate Professor, Communication

4/2/2022

[Dr. Appelman co-authors journal article about news coverage of public opinion polls.](#)

This article examines news coverage of public opinion polls and explores whether journalists and readers are familiar with best practices in this domain. Study one tests the effects of related errors on readers' perceptions, and Study two asks journalists to reflect upon this kind of coverage. Readers (N = 495) only noticed errors when they were very frequent, and many did not assess stories differently based on the presence of errors. Journalists (N = 51) acknowledged that this coverage often contains errors, and many identified individual and structural causes. Taken together, this suggests the need for additional training in polling and numeracy for journalists and audiences. Such efforts could improve news articles about public opinion polls, as well as readers' ability to recognize and seek out stronger coverage.

* Appelman, A., & Schmierbach, M. (published online, April 2022) Coverage of public opinion polls: Journalists' perceptions and readers' responses. *Journalism Practice*. Advance online publication.

SUSAN BRUDVIG

Associate Professor, School of Computing and Analytics (Informatics)

7/11/2022

[Brudvig publishes scholarship in teaching & learning.](#)

Teamwork pedagogies are used for teaching and learning in sociology, addressing general education goals, and developing students' professional skills. Nevertheless, problems arise in group work that negatively affect learning, engagement, treatment of others, and team satisfaction. An intervention was added to an Introduction to Sociology course with an established teamwork pedagogy to improve these outcomes. We compared the results of student surveys before and after the intervention, finding improvement in students' satisfaction with teamwork and students' perceptions of their teammates. There were large, statistically significant improvements in interactional fairness. Students' perceptions of learning improved, although the gains were not statistically significant. We theorize that the intervention improved the psychological safety climate for students, resulting in attitudes and dispositions that benefited social interactions in their teams. Our study demonstrates that faculty can encourage productive behavior in student teams with carefully crafted interventions.

* Zalewski, Jacqueline M. and Susan Brudvig. Forthcoming (published online, July 2022). "Encouraging Productive Behavior in Student Teams with Interventions," *Teaching Sociology*. doi: 10.1177/0092055X221108105

NKU Faculty Research, Scholarship and Creative Activity Highlights

KINSEY B. BRYANT-LEES

Assistant Professor, Department of Psychological Science

5/13/2022

[Dr. Bryant-Lees and colleagues publish new study examining the effects of work role strain and burnout on job satisfaction, and the moderating role of social support in RPA operators.](#)

Utilizing the Job Demands-Resources (JD-R) theory as a guiding framework, the current study examined the relationships between job demands (work role strain) and occupational outcomes (burnout and job satisfaction) and assessed how job resources (team member social support and leader social support) mitigated the impact of high job demands for U.S. Air Force remotely piloted aircraft (RPA) operators. A total of 905 active duty U.S. Air Force RPA operators participated in a web-based occupational health assessment. Study findings confirmed that work role strain proved to be strongly related to negative occupational outcomes – increased burnout and reduced job satisfaction. Compelling evidence emerged suggesting that boosting job resources (i.e., team member and leader social support) may be a promising point of intervention to mitigate negative occupational outcomes. By investigating ongoing job demands that result in a higher incidence of burnout and job dissatisfaction, as well as job resources that protect against burnout and job dissatisfaction, researchers and practitioners can continue to introduce supportive resources at crucial points to alleviate the adverse consequences of occupational stress and burnout. Applying the JD-R theory to these findings highlights the importance of job resources for RPA operators and other employees working in high-risk, high-demand career fields. Implications and future directions are discussed.

* Martinez, R.N., Bryant-Lees, K. B., Mulhearn, T., Goodman, T., Ounpraseuth, S., Thompson, W., & Chappelle, W. (2022). Assessing work role strain, burnout, and job satisfaction among remotely piloted aircraft operators: The moderating role of unit social support. *Psychology, Health, & Medicine*, 1-14.

KINSEY B. BRYANT-LEES

Assistant Professor, Department of Psychological Science

3/31/2022

[Dr. Bryant-Lees publishes article on a new approach to self-report personality measurement in the context of personnel selection.](#)

Self-report personality measures typically seek to capture overall tendencies of individuals' behavior but do not capture potentially useful information provided by within-person variability and differences in trait relevance. We propose an item-response theory approach to simultaneously capture estimates of trait levels, within-person variability, and differences in trait relevance. In contrast to previous research, we focus on intentional within-person shifts in personality that we label adaptability. The ability to simultaneously capture personality trait levels, adaptability, and traitedness with self-report measures allows researchers to better understand the role of personality in the workplace.

* Bryant-Lees, K. B., & LaHuis, D. M. (2022). Clarifying personality measurement in industrial-organizational psychology: The utility of item response tree models. *Personality and Individual Differences*, 187, 1-6.

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ANH DANG and BRIDGET NICHOLS

Assistant Professor, Marketing/Professor, Marketing, Sports Business & Constructions Management
2/22/2022

[Dr. Anh Dang and Dr. Bridget Nichols publish paper on the implications of nutrition labeling.](#)

This paper reports on three experiments that examine the effects of variations in the nutrition information provided on the FUF label. Study one shows that when a positive nutrient is added to the label, unhealthy food is perceived as healthier; healthy food is unaffected. Study two extends this finding by showing that a spillover effect can occur whereby a similar unhealthy food without any front-of-pack nutrition label may also be perceived as healthier after a person is exposed to a product containing a positive nutrition fact on the FUF label. Study three utilizes eye-tracking to show effects on visual attention.

* Dang, A. & Nichols, B. 2022. "Consumer response to positive nutrients on the facts up front (FUF) label: A comparison between healthy and unhealthy foods and the role of nutrition motivation," Journal of Marketing Theory & Practice, 1-20.

LINDA DYNAN

Professor, Economics and Finance
3/29/2022

[Dyanan and Colleagues publish costs savings of hospital intervention to prevent kidney injury.](#)

Nephrotoxic medication exposure is a common cause of acute kidney injury (AKI) in hospitalized children and is associated with chronic kidney disease (CKD). The pharmacist-reliant NINJA program reduced nephrotoxic medication exposure and associated AKI. We assess potential healthcare cost savings from reduced CKD by preventing AKI with the NINJA program for a pediatric population through age 21. We simulated a cohort of 1000 hospitalized non-critically ill children. From the published literature, 310 develop AKI, 267 survive to 6 months, and 10-70% develop CKD, and NINJA implementation reduced AKI by 23.8%. Allowing for varying CKD rates, we estimated a range of NINJA's savings. We model attributable costs including CKD stage-related medications and outpatient visits/tests in 2018 dollars discounted at 3%. We subtract the cost of NINJA screening (daily serum creatinine and pharmacist time) from net savings. We exclude end-stage renal disease (ESRD) and hospitalization costs. Results: No intervention estimated CKD related costs are \$761,852 to \$5,735,027. Post-NINJA cost decreases to \$616,086 to \$4,312,183 (net savings: \$145,766 to \$1,422,183). Total savings, accounting for NINJA screening (\$256,680) are -\$110,914 to \$1,165,503. The breakeven AKI to CKD conversion rate is 13-14% with growth hormone cost included, and 64-65% without. The NINJA program is likely cost beneficial, with greater savings into adulthood by avoiding/delaying ESRD costs.

* Dyanan, L. D Lazear, S Goldstein. (2022) Long-Term Healthcare Cost Savings of a Pediatric Nephrotoxic Medication-Associated Acute Kidney Injury Reduction Program in a Simulated Sample. Journal of Pharmacy Practice

NKU Faculty Research, Scholarship and Creative Activity Highlights

HAILLEY FARGO

Head of Education & Outreach Services/Assistant Librarian, Steely Library

7/1/2022

[Hailley Fargo co-publishes an article on undergraduate research in library and information sciences.](#)

Many librarians conduct research in higher education by studying the undergraduate students with whom they work. Instead of research on students, this paper argues the need for library and information science (LIS) research with, for, and by students. It shows why librarians should explore collaborative partnerships with student-researchers to produce LIS scholarship. Such partnerships can create work that amplifies and responds to students' lived experiences. Research collaborations that include students as partners provide important learning opportunities, help learners gain familiarity with the LIS field, and produce significant student-centered scholarship. The authors present five principles for librarians to consider when conducting research with undergraduate students and provide two case studies to show the merit of these collaborations and how they work in practice.

* Fargo, H.M., & Linares-Gray, R.H. (2022). Collaborating with Undergraduate Students on LIS Research. *portal: Libraries and the Academy* 22(3), 631-649. doi:10.1353/pla.2022.0034.

SUK-HEE KIM

Associate Professor, School of Social Work

1/10/22

[Dr. Kim's Peer Reviewed Manuscript has been accepted for publication in the School Social Work Journal.](#)

Hope can be a mitigating factor against negative outcomes, including academic achievement. However, little study has been done to examine how the academic environment influences perceptions of hope. This study examined what perceived aspects of the educational experience and climate impact and predicts scores of perceived hope for students. Using data from an academic needs assessment, a measure of perceived of hope and perceptions of the school environment were analyzed. Three regression models were run to identify aspects of the educational experience and environment significantly predicted perceptions of hope. Ultimately four perceived aspects of the academic environment were found to account for 56.4% of the variance in perceived hope. The study highlighted the importance of education and socialization, these findings indicate that hopefulness can be increased by addressing aspects within the educational environment.

* Canfield, J. P., Harley, D., & Kim, S. (2022). Perceived educational experiences related to school climate as predictors of hope for urban adolescents: Results from a school needs assessment. *School Social Work Journal*, 46(2): 70-86

NKU Faculty Research, Scholarship and Creative Activity Highlights

SUK-HEE KIM and DAVID TATAW

Associate Professor, School of Social Work/Director, MS Health Science Program and MS Health Administration
5/31/2022

[Drs. Suk-hee Kim and David B. Tataw's peer-reviewed manuscript has been accepted for publication in the Social Work in Public Health.](#)

The purpose of the study is to assess the impact of community-wide activities implemented in a Youth and Family Master Plan (PYFMP) to address youth antisocial behavior and attitudes towards antisocial behavior among youths and parents of the Pomona Unified School District in California, USA. The PYFMP was developed, implemented, and evaluated within an integrated conceptual framework which combines social cognitive theory, the theory of fundamental causes, and the risk and protective factors approach in an ecological perspective.

* Tataw, B. D., & Kim, S. (Published online May 2022). Antisocial behavior and attitudes towards antisocial behavior after a five-year municipal youth and family master plan in Pomona, California, USA. *Social Work in Public Health*, doi: 10.1080/19371918.2022.2072037.

DOUG KRULL

Professor, Psychological Science
8/1/22

[Published article by Krull and McCloy](#)

Researchers interested in the scientific study of religion have developed many ways to measure religiosity, but the great majority of these are based on self-report. A potential limitation of such measures is that participants might not report their religiosity accurately. The current paper describes the development of a 20-item Bible Knowledge Scale (BKS). Although appropriate only for religious populations that rely on the Bible, this scale provides an objective measure of religiosity that researchers might find useful. The BKS demonstrated internal consistency reliability estimates between .80 and .98 and good test-retest reliability. The BKS correlated positively with intrinsic religiosity, an index of religious beliefs, and religious service attendance, but correlated negatively with Quest.

* Krull, D. S., & McCloy, R. A. (2022). Add to Your Faith Virtue; and to Virtue Knowledge: A Bible Knowledge Scale. *Journal of Psychology and Christianity*, 41, 106-117.

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JACLYN PERRMANN-GRAHAM, JING LIU, CAROLE CANGIONI, and SANDRA SPATARO

Assistant Professor/Assistant Professor/Associate Professor/Professor - Management

2/8/2022

[Management faculty publish article on teaching psychological safety.](#)

We present an in-class improvisation exercise as a method to help students translate concepts of psychological safety into behaviors they can implement. Psychological safety has been shown to be critical to effective team functioning and vital to creativity and innovation on teams, yet not enough Management education is aimed at helping students bring the concept to life. The exercise presented here is targeted at empowering students to experience and enact psychological safety using the rules of improv as structural support. Student team presentations demonstrated that students embraced the aspects of improv that helped their team be more creative and more agile. More specific results, culled from individual student reflections on the exercise, indicate internalization of the tenets of improv to build safety on their teams. They were able to assert clear links between improv behaviors, aspects of psychological safety, and team performance; further, they clearly articulated future practices on their teams that would maintain that safety going forward. This article closes with a call for more ways to bring improv into management classrooms to empower students to be better innovators and better collaborators.

* Perrmann-Graham, J., Liu, J., Cangioni, C., Spataro, S. E. (2022). Fostering Psychological Safety: Using Improvisation as a Team Building Tool in Management Education. *International Journal of Management Education*, 20(2).

JAMES WALDEN

Professor – Computer Science

5/23/2022

[Dr. Walden publishes conference paper on latest version of OpenSSL.](#)

OpenSSL is the most widely used encryption library for mobile and web applications. As such, you depend on it to secure your private information several times a day. The OpenSSL project released version 3.0.0 in September 2021. This release was a departure from previous versions of OpenSSL in several ways, including the first use of public software design documents. We studied the evolution of code quality of version 3.0.0, finding surprising decreases in complexity and other measures of poor quality despite substantial increases in the size of both the code base and development team.

* Walden, J. (2022). OpenSSL 3.0.0: An exploratory case study. In *Proceedings of the 19th International Conference on Mining Software Repositories*.

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Other Research News

SUK-HEE KIM

Associate Professor – School of Social Work

2/23/22

Dr. Suk-hee Kim Presented at the Inaugural Virtual Opioid and Other Substance Use Disorders to Advance Racial Equity, Inclusive Practices, and Cultural Humility Among Future Behavioral Health Practitioners National Conference

Dr. Kim was an invited speaker for the national conference, hosted by the University of North Carolina at Greensboro and North Carolina A&T State University Joint Programs in Social Work funded through the Health Resources and Service Administration (HRSA) Opioid Workforce Education Program. She presented her field study experiences, challenges, and collaborative strategies in the field of substance use prevention, treatment and recovery from a cultural humility and racial equity lens to students, behavioral health and substance use professionals, field instructors, and community partners.

SUK-HEE KIM

Associate Professor – School of Social Work

Dr. Suk-hee Kim, Associate Professor, in the School of Social Work recently Subawarded to the HEALing Communities Study (WAVE II) with the University of Cincinnati

Dr. Suk-hee Kim, Associate Professor, in the School of Social Work has been subawarded to the HEALing Communities Study (WAVE II): Optimizing HEALing in Ohio Communities Project with the University of Cincinnati. The HEALing Communities Study (HCS), a large, multi-site clinical trial funded by the National Institute on Drug Abuse (NIDA), part of the National Institutes of Health, in partnership with the Substance Abuse and Mental Health Services Administration. Dr. Kim will serve as a County Intervention Design Team Lead on the project and have several responsibilities over the study period. After her completion of the HEALing Communities Study (WAVE I), the current HEALing Communities Study (WAVE 2) will further determine how to address the opioid epidemic through prevention, treatment and recovery. The project will use community engaged methods to unite experts and community stakeholders to narrow service gaps with the goal of reducing opioid deaths. In Ohio, the study will be carried out across nineteen communities. Throughout the project, all participating communities will continue to get all the other treatment and prevention resources and services that they would otherwise receive.

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Prepared by:

University Research Council and

Office of the Vice Provost for Graduate Education, Research and Outreach