

# University of Missouri-Kansas City

## Perspectives on Interprofessional Teamwork: Analysis of Student and Provider Outcome Data from a Three Year Interprofessional Clinical Practice (IPCP) Team Grant to Develop Effective IPCP Teams

Susan Kimble, DNP, RN, ANP-BC  
Mark Sawkin, PharmD, AAHIVP  
Michael McCunniff, DDS, MS



# University of Missouri-Kansas City

## Bridging the Disparities Gap: Strengthening Community-based Healthcare Delivery in an Urban Setting



# University of Missouri-Kansas City

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Services Administration

Nurse Education, Practice, Quality, and Retention:  
Interprofessional Collaborative Practice grant



# Objectives:

- 1. Discuss project surveys and methods as applicable to other IPE projects.
- 2. Reflect on the lessons learned regarding leading effectiveness IPCP teams.
- 3. Implement effective IPCP teams in primary care clinical settings.

# Project Team:

Susan Kimble, DNP, RN, ANP-BC

Steven C. Stoner, PharmD, BCPP

Michael D. McCunniff, DDS, MS

Margaret Brommelsiek, PhD

Heather J. Gotham, PhD

Jeremy Kirchoff, MD

Sudeep Ross, MD

Martha Lofgreen, MSN, RN, WHNP

Renee Endicott, DNP, RN, FNP-BC

Kendall Kohnle, BA

School of Pharmacy Faculty Preceptors:

Andrew Bzowyckyj, PharmD; Maqual Graham, PharmD; Cameron Lindsey, PharmD, BC-ADM, CDE, BCACP; Valerie Ruehter, PharmD, BCPP; Mark T. Sawkin, PharmD, AAHIVP; Stephanie Schauner, PharmD, BCPS

Project Director

School of Pharmacy Lead

School of Dentistry Lead

Director of IPE

Project Evaluator

Hope Family Care Center

Samuel U. Rodgers Health Center

School of Nursing Faculty

School of Nursing Clinical Faculty

Evaluation Coordinator

# Background:

- Interprofessional Collaborative Practice (IPCP)
- Extending classroom IPE experiences at two primary care urban community clinics (Community based and Federally funded health center)
- Students gained advanced knowledge/skills caring for vulnerable populations-high numbers of immigrant and refugees

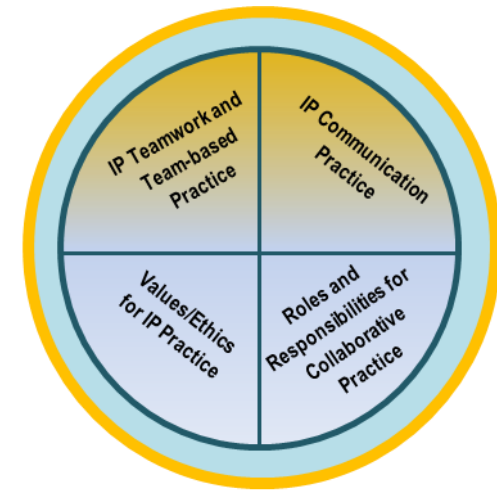
# Background:

- First clinically based IPE activity at UMKC
- Focused on nurse leadership (NEPQR grant)
- Develop patient focused team based care
- IP healthcare teams of Advanced Practice Nursing, PharmD and Dental students
  - NP and MD preceptors
  - Semester long rotations



# Methods: Students and Providers

- Pre-clinical modules focused on four IPE goals:
  - roles/responsibility
  - values/ethics
  - IP communication
  - teams/teamwork
  - plus diversity

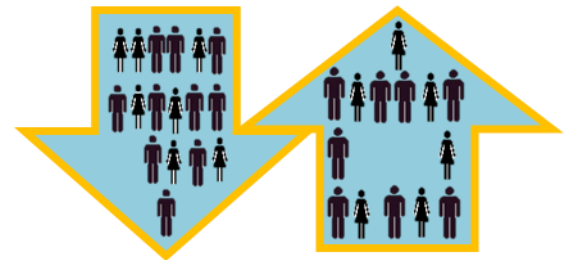


(IPE Expert Panel Report, 2011)

- Emphasis on working with vulnerable populations

# Methods: Students and Providers

- Incorporating team based primary care
  - collaborating with two urban clinics
- Team focused education prior to clinical placement
  - emphasis on patient centered care of vulnerable populations
  - special populations and cultures
- Student skills and expertise based on professional roles regarding patient assessment



# Methods: Students and Providers

- Readiness for Interprofessional Learning Scale – pre-clinical
  - (McFadyen et al., 2006)
- Interprofessional Collaboration Scale – post-clinical
  - (Kenaszchuk et al., 2010)
- Attitudes Toward Health Care Teams Scale – pre/post
  - (Heinemann, et al., 1999)
- Team Skills Scale – pre/post
  - (Hepburn, Tsukuda, & Fasser, 1998)
- Cultural Competence Assessment – pre/post
  - (Schim, et al., 2004)

# Methods:

- Focus groups – post rotations
  - Students and providers
- Students completed pre/post surveys
- Clinical huddles
- Case presentations

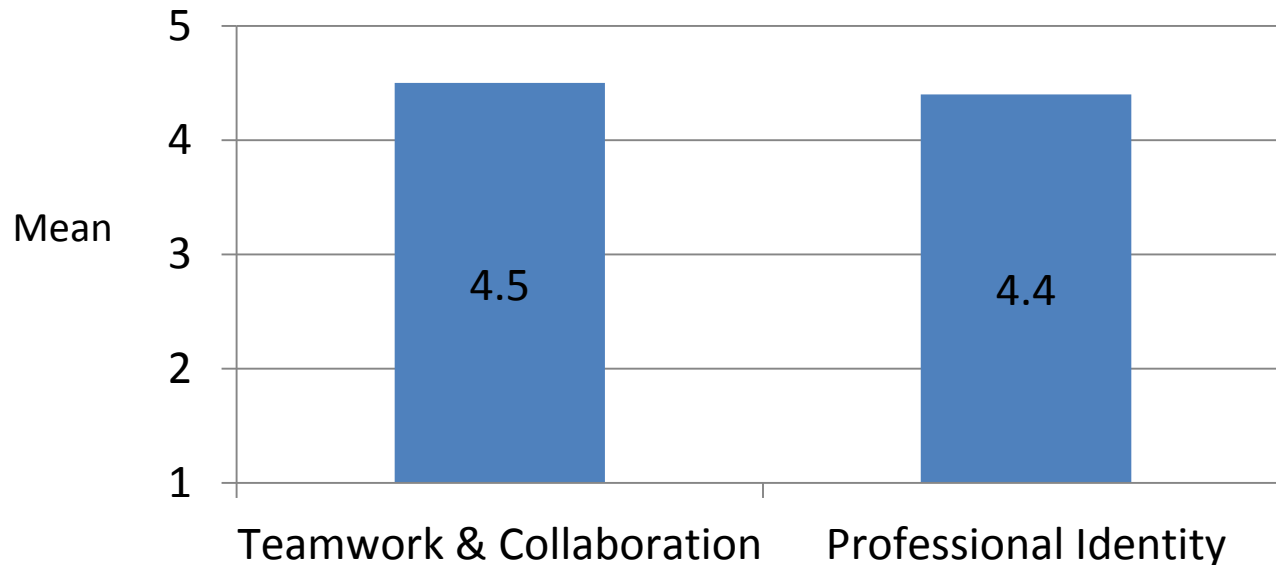
## Final after 7 semester rotations: N=84 (5 groups)

- 12 NP students
- 56 Pharmacy students
- 16 Dental students
- 52 females (61.9%), 32 males (38.1%)
- 1.2% Hispanic/Latino/a; 85.5% White; 8.3% African-American/African, 10.7% Asian; 4.8% American Indian
- 28 years old mean, (22-49 range)
- 9.2 days (mean, 1-37 range) on rotation

# Methods

## Results – students (n=84)

- *Readiness for Interprofessional Learning Scale* (McFadyen et al., 2005)
  - 19 items, 1 = strongly disagree to 5 = strongly agree
  - Administered at baseline

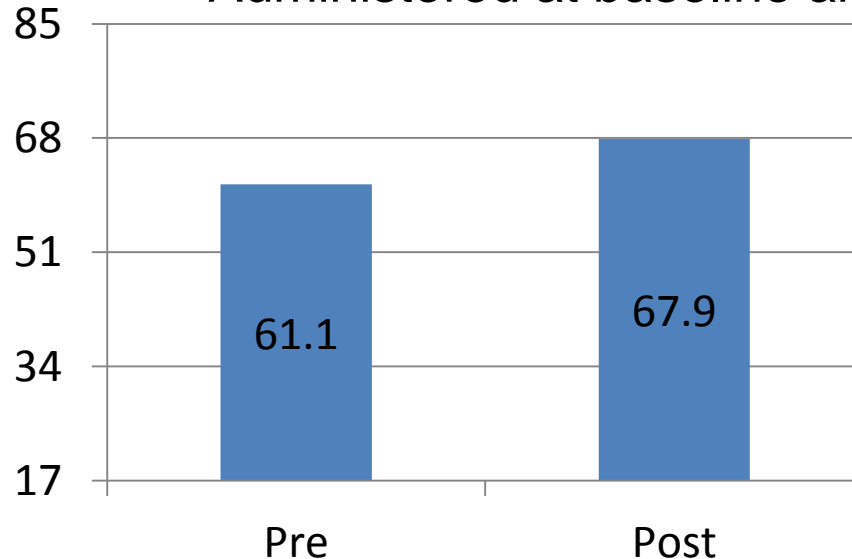


Students showed very high readiness to participate on IPCP teams, and a very high level of openness to learn from/with other students.

# Methods

## Results – students (n=60)

- *Team Skills Scale* (Hepburn, Tsukuda, & Fasser, 1998)
  - Assesses team members' perceptions of their own skills
  - 17 items rated on 5 pt scale, 1=Poor, 2=Fair, 3=Good, 4=Very Good, and 5=Excellent (possible range 17 – 85)
  - Administered at baseline and end of rotation

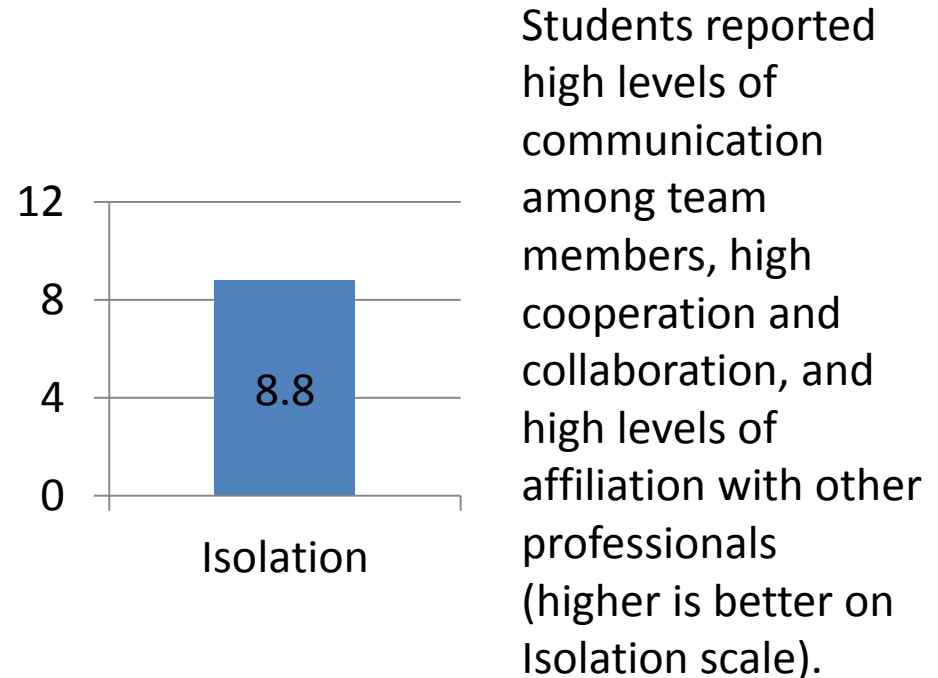
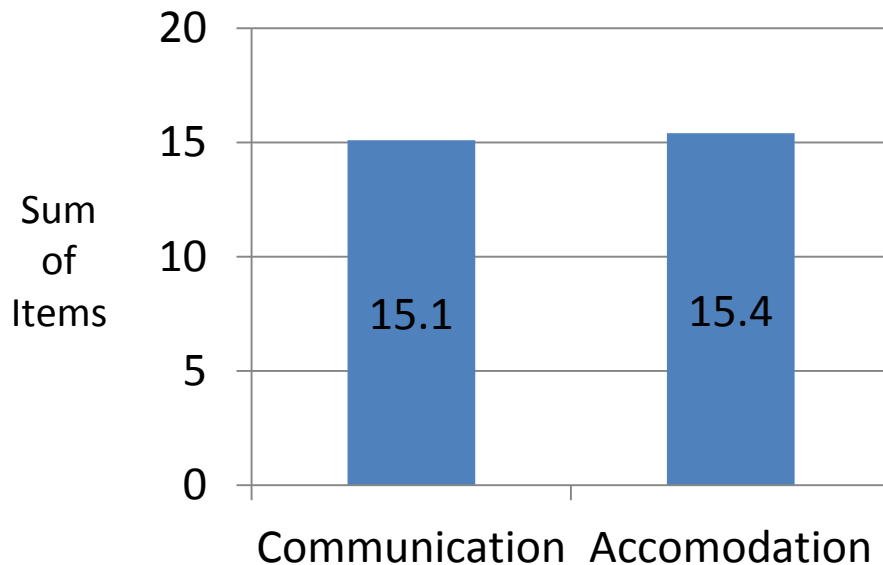


Students reported significant increase in perceived team skills ( $t = 4.25, p = .000$ )

# Methods

## Results – students (n=64)

- *Interprofessional Collaboration Scale* (Kenaszchuk et al., 2010)
  - 14 items, 1 = strongly disagree to 4 = strongly agree
  - Administered at end of rotation





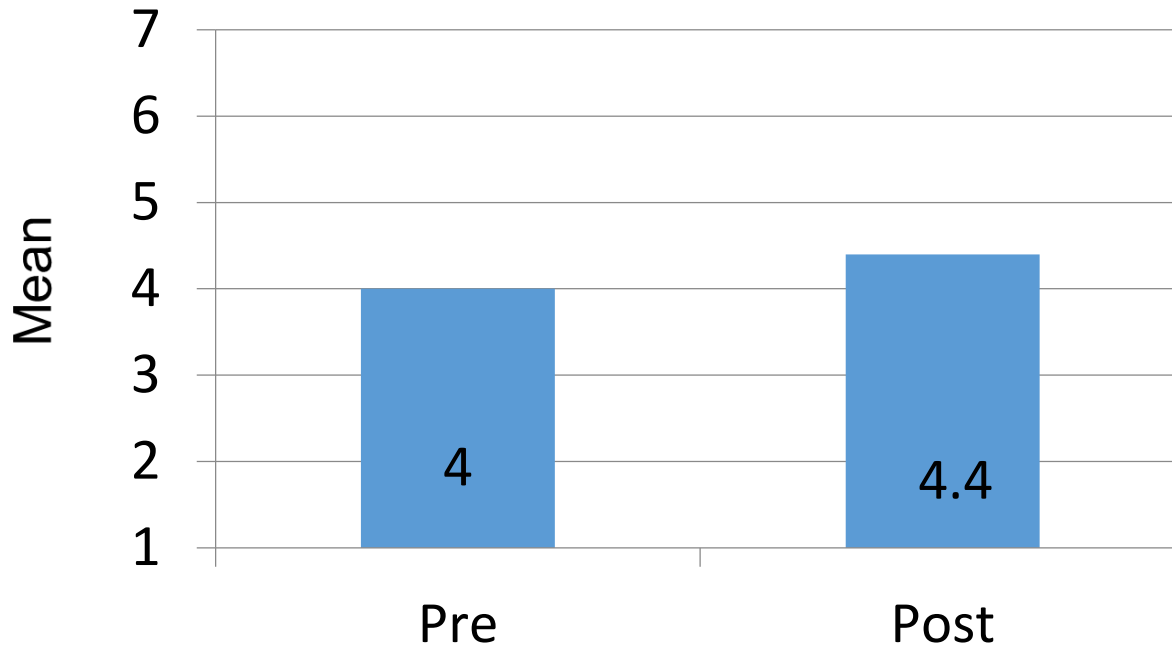
# Results: Students

- *Attitudes Toward Health Care Teams Scale* (ATHCT; Heinemann et al., 1999; Kenaszchuk, 2010)
  - 21 items scored on a 6 pt. scale of Strongly Disagree, Moderately Disagree, Somewhat Disagree, Somewhat Agree, Moderately Agree, Strongly Agree.
  - Others reported 3 subscales: (e.g., Kenaszchuk 2010):
    - Team Values
    - Team Efficiency
    - Shared Leadership
  - Administered at baseline and end of rotation
  - There were no significant changes from baseline to end of rotation on any of these scales

# Results: Students

## ***Cultural Competence Behavior Subscale***

- Rating of how often students perform 10 behaviors related to culturally competent care on a scale from 1 = Never to 7 = Always
- Students:  $n = 59$



Students reported a significant increase in culturally competent behaviors ( $t = 2.95, p = .005$ )

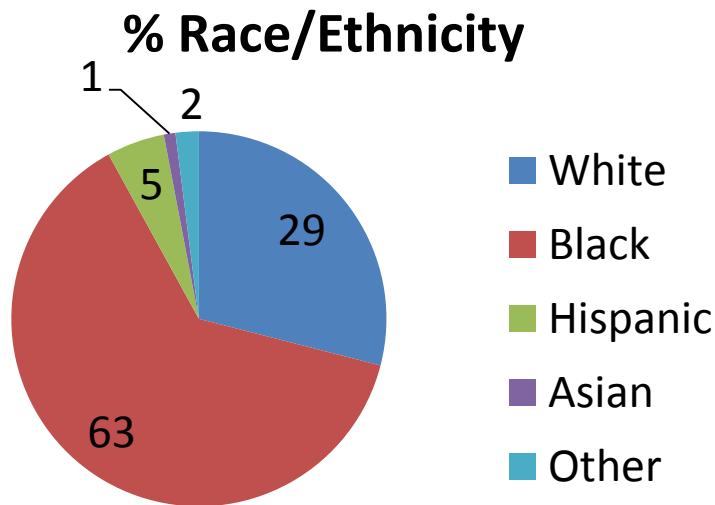
# Summary of student surveys

- Students showed:
  - Very high readiness to participate on IPCP teams, and openness to learn from/with other students
  - Significant increase in perceived team skills from pre- to post-rotation
  - High levels of communication among team members, high cooperation and collaboration, and high levels of affiliation with other professionals
  - No changes from pre- to post-rotation on Team Values, Team Efficiency, or Shared Leadership
  - A significant increase in the frequency with which they performed cultural competence behaviors.

# Results – patients seen – Clinic 1

## Small, young community-based health center:

- NP students, Pharmacy students, Dental students
- 1,418 patients seen (66% female; 0 - 90+ yrs)



## Most Frequent Diagnoses

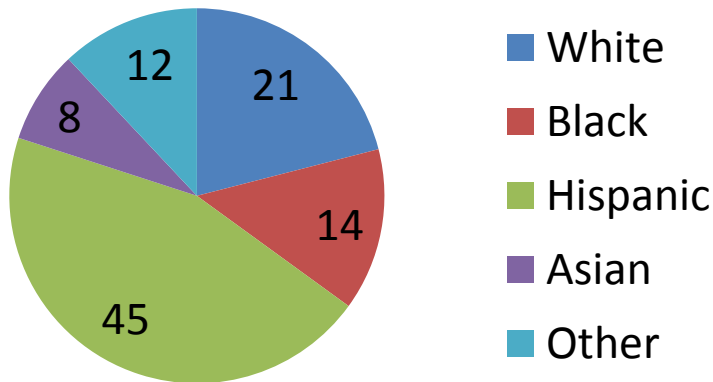
- 181 – Essential Hypertension
- 153 – Neurotic Disorders
- 124 – Diabetes Mellitus
- 139 – General medical exam
- 118 – Affective Psychoses
- 89 – Health supervision infant/child
- 85 -- Disorders of Lipid Metabolism
- 78 – Overweight and Obesity
- 58 -- Asthma

# Results – patients seen – Clinic 2

## Large, urban federally-qualified healthcare center:

- NP students, Pharmacy students
- 2,398 patients seen (76% female; 0 - 90 yrs)

### % Race/Ethnicity



### Most Frequent Diagnoses

- 406 – Normal Pregnancy
- 330 – Essential Hypertension
- 258 – Screening Malignant Neoplasm
- 246 – Diabetes Mellitus
- 191 – General Medical Examination
- 177 -- Health supervision infant/child
- 176 – Contraceptive Management
- 145 – Disorders of lipid metabolism

# Focus groups: after each rotation

Over arching themes emerged

- “Opportunities to interact with a number of different providers/preceptors
- Working with students from different professions and with different prior clinical experiences, seeing what the different professions’ scope of knowledge and practice really are.
- Exposure to patients with a multitude of disease states.
- Patients seemed very thankful to get to see nursing and pharmacy together, including getting their medication questions answered during one visit.
- Providing pharmacy students an opportunity to talk to patients and gather information from them in a more in-depth way than their usual practice.

# Focus groups

- Increasing the clinic's ability to serve patients due to the added practitioner.
- The team approach raised the level of care provided at the clinic.
- Interdisciplinary collaboration with pharmacy faculty.
- Ability to utilize each other's knowledge to cover blind spots, and catch things they might not have otherwise.
- Enjoyed being able to see the various health issues broken down by each discipline.

# Background information on IPCP

- Students and providers both requested a basic overview of IPCP, including information about how other IPCP teams have worked together, models for how IPCP can work.
- Information about how specific preceptors want the teams to work, what each other's roles are
- Information about different cultures, clinic computer systems, resources available to patients at the clinics (e.g., social work services, medication assistance)
- More resources available regarding other clinics that could assist the patient in the referral process.
  - (Free clinics that could assist with medical issues. Ex. School of Dentistry gives free or reduced cost oral exams)

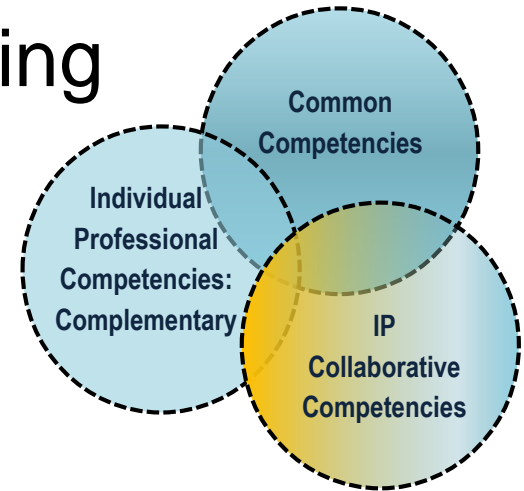


# Results:

- Students gained new perspectives regarding caring for vulnerable patient populations in safety-net
- Increased interactions across professions (nursing, dentistry, and pharmacy) with these patient populations
- Illustrated importance of working within IPCP teams
- Students felt better prepared to become future leaders in the healthcare arena

# Results:

- Team informed care decisions
- Acquiring new perspectives regarding vulnerable patient populations
- Improved communication through interactions with team members
- Opportunities to serve as change agents within own professions
- Holistic picture of patients and patient care



# Results:

- Instilled confidence in challenging situations
- Overcoming preconceived assumptions
- Established a platform for open and honest communication
- Team socialization integral
- Impacted health delivery

# Results:

- Student teams affected patient desired outcomes
  - Patients liked the team based care approach
- Students' report increased team skills and cultural competence
- Content needed on specific minority populations
- References on specific cultural competency for IPE currently lacking
  - Develop to provide concise guidance to beginning students

# Conclusions:

- Project completed
- Data outcomes guiding future IPE curriculum development and projects
- Challenges regarding scheduling
  - Flexibility paramount
- Smaller clinical teams advantageous for team cohesiveness

# Recommendations:

- Develop team identity early in project
- Discuss concise explanations of IPE and IPCP
- Examples of how IPCP works in real world
- Create community partnerships in advance
- Students benefit from work with same interprofessional team members

# Recommendations:

- Semester-long rotation minimum
- Provide regular meetings for feedback
  - students, faculty, and clinical preceptors
- Communication platform a must
- Buy-in from community partners
- Flexibility paramount

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## Questions?

[kimbles@umkc.edu](mailto:kimbles@umkc.edu)

[sawkinm@umkc.edu](mailto:sawkinm@umkc.edu)

[mccunniffm@umkc.edu](mailto:mccunniffm@umkc.edu)

[gothamHJ@umkc.edu](mailto:gothamHJ@umkc.edu)

[brommelsiekm@umkc.edu](mailto:brommelsiekm@umkc.edu)



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