

NORTHCENTRAL UNIVERSITY
2019 FACULTY SYMPOSIUM

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Linking parks to primary care through place-based referrals.

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Funding

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Purpose:

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The purpose of this study is to develop a mechanism for parks to receive primary care place-based physical activity referrals.

Background

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Chronic diseases account for 7 of the top 10 causes of death in the US (1)

Participation in physical activity is widely known to mitigate the onset and effects of chronic disease among adults (2)

The percentage of US adults who are inactive increases with increasing age (3)

Background

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Park exercise prescriptions and referrals played a role in initiation of exercise practice

Clinical and community support is viewed as an encouraging factor for new exercisers

Potentially effective approach with underserved, underrepresented patients in exercise intervention research

Background

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Primary care exercise referrals challenges:

- Systematically determining clinician roles
- Logistically determining patient access barriers
- Legally in the inability to share patient data to record activity

Methods

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- Partnership: MetroHealth and Cleveland Metroparks
- A 40-item questionnaire was adapted and administered to metro park employees.
- Descriptive statistics were generated regarding exercise related practices and employees' perceived needs related to facilitating park prescription and referral.
- Follow up interviews with three park staff who work in programming

Methods

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- Systematic and legal barriers and facilitators to exercise referral were assessed
- Mapped proximity from clinics to metropark locations.
- Developed proposed framework to engage both clinicians and park staff and test intervention feasibility.

Results

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- Complete responses were received from 100 employees; few (16.7%) had prior exposure to park based exercise referrals.
- Park Employee barriers to following referrals included:
 - Lack of directions or examples to allow them to operationalize guidelines for a given patients
 - Lack of community clinical linkages to help park employees work alongside clinicians to identify place-based physical activity opportunities appropriate for each patient.

Results

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Table 1: Characteristics and practices of surveyed park employees (n = 100)

Factor	N	%
Gender		
Male	43	43
Female	57	57
Department		
Park/facility operations	18	18
Outdoor education/experiences	13	13
Administration*	20	20
Zoo/animal care	59	59
Race		
Other	5	5
White	93	93
Choose not to answer	2	2
Factor	Mean	SD
Years working in position	12.82	9.99
Years of age	44.61	11.47
Vigorous physical activity	2.80	1.99
Moderate physical activity	3.45	2.30
Walk (at least 10 min)	5.01	2.03
Sitting	6.66	3.39

Results

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Table 2: Exercise attitudes (n = 100)

Factor	Mean	SD
Exercise is beneficial in preventing chronic diseases	4.76	0.60
Exercise can yield benefits for individuals of any age	4.87	0.38
Exercise is beneficial in improving mental health	4.80	0.62
Exercise has additional benefits if preformed outdoors	4.51	0.88
There should be required education and certification	3.48	1.27
Employees should advocate for policies that support park prescriptions	3.48	1.14

Results

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Table 3: Exercise Knowledge assessment and self-assessment (n = 100)

Factor	Correct	%
US Physical Activity Guidelines - cardio	50	50
US Physical Activity Guidelines - strength	66	66
Factor	Mean	SD
Rating park prescriptions knowledge	2.04	1.45
Rating park prescriptions confidence	2.38	1.35



Results

Table 4: Increasing likelihood of referral (n = 100)

Factor	n	%
Park/trail info	65	42.76
Increased park/trail quality	34	22.37
Increased medical supervision	19	12.50
Something else	18	11.84
Increased security	16	10.53

Results

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Table 5: Barriers to exercise referrals: (n = 100)

Factor	Mean	SD
I do not have enough time to assist with exercise	2.75	1.41
Lack of standard guidelines	3.29	1.40
Lack of process in place for me to follow	3.55	1.46
Lack of evidence for health benefits of exercise	1.13	1.35
I do not have enough financial incentive	1.15	1.42
Lack of exercise education	2.32	1.51
I need more personal knowledge	2.73	1.52
Other lifestyle changes are more important	1.83	1.57
Lack of parks proximate to the patients	1.95	1.65
Lack of patients' cultural acceptance of park prescriptions/referrals	2.71	1.52
Weight loss as the main focus of exercise discourages patients	2.35	1.29
Other barriers	2.24	1.94

Results

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Table 6: Training topics and user information preferences: (n = 100)

Factor	N	%
Have you received formal training about park prescriptions or referrals	4	4
Interest: Park prescription relative to specific medical conditions	78	78
Interest: Park prescription relative to age	71	71
Interest: Locations to refer patients	59	59
Interest: Park prescription relative to specific medication	50	50
Interest: Other	9	9
Training preference: Face to face	43	43
Training preference: Printed self-study guide	12	12
Training preference: Video/DVD	6	6
Training preference: Online	36	36
Factor	Mean	SD
Materials for park users: Poster	2.64	1.44
Materials for park users: Prescription pad for exercise	3.64	1.30
Materials for park users: Video/DVD	4.11	1.18
Materials for park users: Online	2.37	1.15
Materials for park users: App	2.52	1.33
Materials for park users: Something else	4.72	0.98

Results

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Recommendations from interviews included:

- Refer community members to programs or events rather than to individual activity
 - Accountability
 - Comfort
- Emphasize flexible programming that allows individuals to participate to their personal comfort level
- Disability accommodated programs/adaptations are available

Results

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Recommendations from interviews included:

- More programming can be added to accommodate group referrals from clinic locations to proximate parks
- Park staff may be able count/assess participation, given notice
 - Need additional technology and/or resources to validate/verify actual physical activity
 - Beyond the scope and training of park staff

Results

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Interview comments:

- Local health systems referring some staff to park programs
- Health insurance providers support physical activity
- Direct communications among/between parks and clinics/providers are not occurring

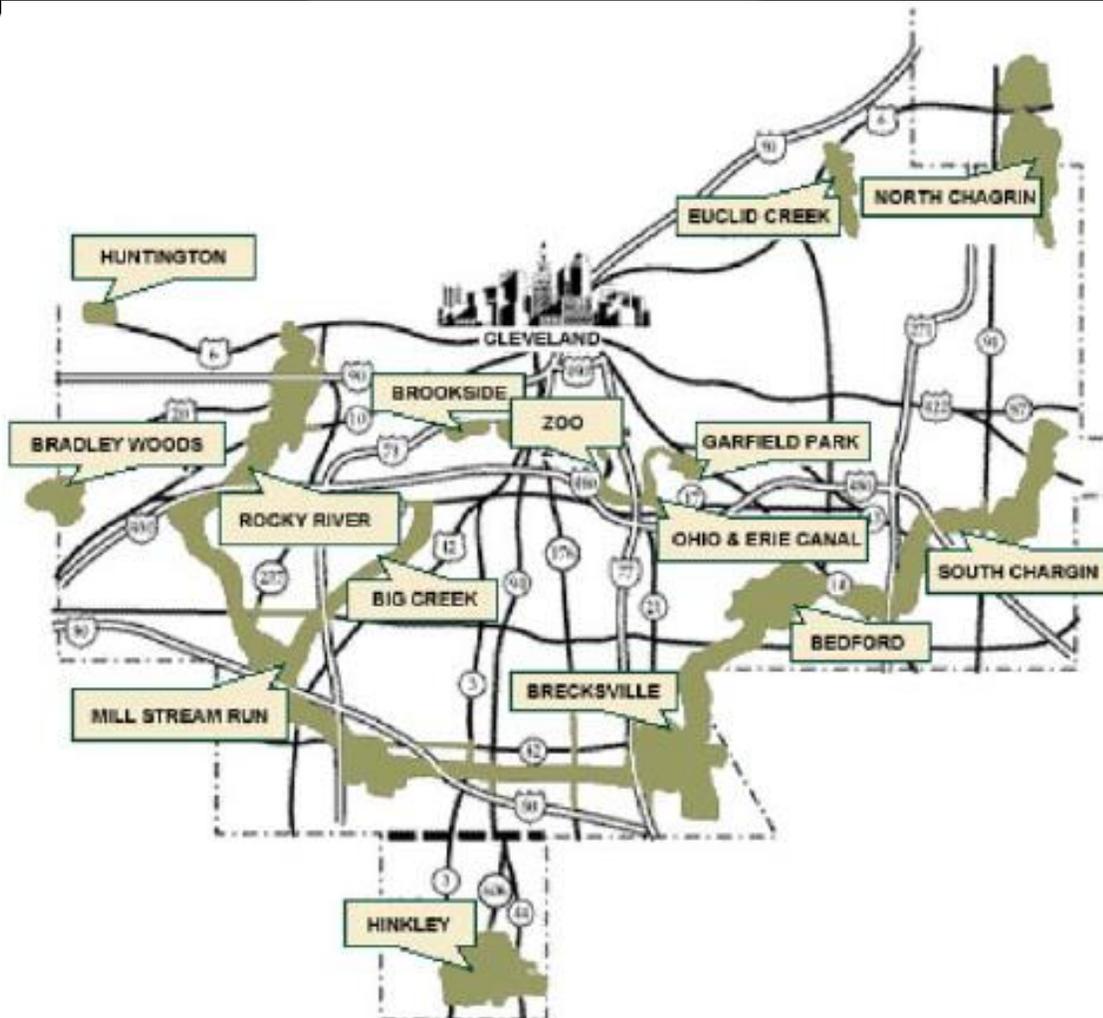
Results

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- Importance of involving clinician and park employees in developing a framework
 - Park employees work alongside clinicians to identify place-based physical activity opportunities
 - Identification of the clinics with the most likelihood of nearby parks and trails.

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Proximity from clinics to metropark locations



- **Brunswick Health Center**
 - Hinkley Reservation, Mill Stream Run, Brecksville
- ****Medina Health Center (Regan Parkway)**
 - Mill Stream Run, Hinkley Reservation
- **Brecksville Health and Surgery Center**
 - Brecksville (Cuyahoga Valley National Park), Mill Stream Run, West Creek
- **Broadview Heights Sports Medicine and Physical Therapy**
 - Brecksville (Cuyahoga Valley National Park), Mill Stream Run, West Creek
- **State Road Family Practice**
 - Brecksville (Cuyahoga Valley National Park), Mill Stream Run, Sandy Hook Park
- **North Royalton Discount Drug Mart**
 - Brecksville (Cuyahoga Valley National Park), Mill Stream Run, Sandy Hook Park
- **Middleburg Heights November Family Health Center**
 - Big Creek, Mill Stream Run Reservation, Rocky River Reservation

Protocol Matrix

Clinician screens patient for:
Physical activity/sedentary status
Neighborhood, work/school, & home built environments for PA
Readiness for change

Patient linked to community
PA resources

Patient continues current
PA or sedentary lifestyle

Patient selects access point

Yes

No

Yes

No

Patient is inactive

Patient visits City Parks

Patient visits Metro Parks

Patient uses home
equipment

Discussion

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- Respondents suggested that information in printed form would be useful.
 - A list of proximate parks and/or programs or a pocket guide
 - Apps are less useful because of the number of competing available apps.

Discussion

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- Most park employees have not received training (96%)
 - Training is needed to build both knowledge and confidence
- Sense of compartmentalization: not everyone views his/her job as having to do with health or recreation.
 - Helps explain the disconnect between working in health and being healthy.
 - Responses that suggested people were willing to do more but need guidance, information and/or approval to do so.

Conclusion

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- Collaboration is vital in developing place-based exercise referrals.
- Clinician and park employees have valuable experience in operationalizing park prescriptions and referrals to encourage this systematic shift.
- Despite the increased focus on park perceptions and referrals, park employees are not equipped with the training or system needed to deliver these prescriptions and referrals.

Conclusion

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- Thoughtfully developed place-based exercise referrals have the potential to increase all patients' chances of complying with exercise guidelines.
- Operationalizing park prescriptions and referrals might improve park employee facilitation of exercise prescription or referral.
 - Technological and/or process details warrant further exploration

Dissemination

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- Kristen E Septaric (student), Sheryl Chatfield PhD, **Carissa Smock**. Linking Parks to Primary Care Through Place-Based Exercise Referrals: Results From a Survey of Park Employees (April 2019 Kent State University Undergraduate Research Symposium)
- **Carissa Smock**, Sheryl Chatfield. Determining primary care providers' trends, barriers, and continuum of exercise-related provider practices that impact use of exercise prescriptions and referrals (Nov 2018 American Public Health Association Annual Meeting in San Diego)
- **Carissa Smock**, Anthony Joy, Sheryl Chatfield. Linking primary care place-based active recreation (like walking and cycling) referrals to community/home resources (Ohio Public Health Combined Conference May 2019)
- **Carissa Smock**, Sheryl Chatfield. Linking parks and zoos to primary care through place-based exercise referrals. (2019 American Public Health Association Annual Meeting in Philadelphia)
- **Carissa Smock**, Sheryl Chatfield How often is where patients live, work, and play considered in clinician exercise referrals and prescriptions: An examination of the playing field. (2019 American Public Health Association Annual Meeting in Philadelphia)

Questions?

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