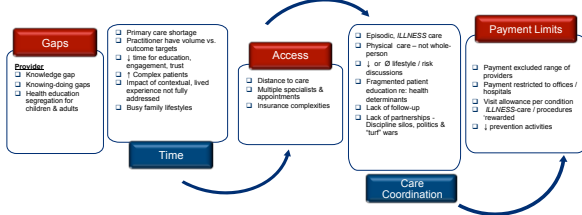


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Purposes

- Create and describe a "turn-key" multi-component, evidenced-based, cost effective and sustainable method to enhance overall wellbeing and reduce disease risk in busy families.
- Address literature gaps as well as complex situational and contextual influencers / barriers (low and middle-income).
- Learn how to leverage transdisciplinary teams for integrative initiatives to transform the *illness-care* system into a true *health* care model that protects health and improves quality outcomes, efficiency, and economics.



Background and Significance

- Health and wellbeing are influenced by modifiable factors (> 50%)
- Bio-psychosocial, situational & contextual health determinants are interconnected 'primers' for disease risk (Physiological, Cognitive, Social, Lifestyle and Environment) with positive/negative feedback loops.
- 70% of deaths - From chronic non-communicable diseases (NCDs)
- Chronic stress injury is a major contributor to NCDs
- 86% - Healthcare cost for treatment *after* disease occurs
- 3% - Spent on prevention efforts
- Annual U.S. NCD costs: INDIRECT + DIRECT + INTANGIBLES = \$ 1.5 trillion



Process

Synthesize knowledge

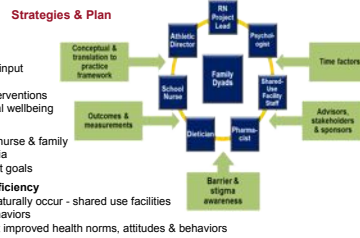
- System barriers & facilitators
- Provider, stakeholder & advisor input
- Theory and evidence basis
- Successful multi-component interventions
- Validated tools - Biopsychosocial wellbeing

Reduce barriers & stigma

- No weight status inclusion criteria
- De-emphasize short-term weight goals

Maximize wellness facilitators & efficiency

- Providers meet where groups naturally occur - shared use facilities
- Enhance health literacy and behaviors
- Utilize social support to kickstart improved health norms, attitudes & behaviors



Methods

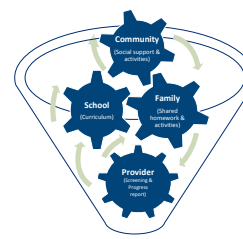
Hybrid Format

- Hands-on activities (classroom, community, at-home) using science experiments, technology, math & Spanish)

Materials

- Core content from validated sources
- Fitbit® wristbands
- Books, short videos, emails & handouts

Multi-setting



Outcomes

Statistically significant results by group	
Adult (n=14)	Adolescent (n=14)
<ul style="list-style-type: none"> • Strength (Push ups) [Z= -2.812, p=.005] • Flexibility (Sit & Reach) [Z= -2.580, p=.01] • Resting HR [Z= -2.515, p=.012] <ul style="list-style-type: none"> • Average HR decrease from 83 to 69 • Average decrease 14 bpm • Patient Activation Measure (PAM® - 13) [Z = - 2.121, p = 0.034] <ul style="list-style-type: none"> • Measures health activation, self-management & engagement • Average score increase from 3.07 to 3.50 • Intrinsic motivation [Z= - 2.411, p = .016] <ul style="list-style-type: none"> • Measures engagement in an activity for itself • Associated with perceived competence, positive emotion & social relatedness • Average increase from 4.75 to 6.02 	<ul style="list-style-type: none"> • Strength (Push ups) [Z= -3.023, p=.003] • Weekday sleep [Z= -2.366, p=.018] • Positive Emotion [Z = - 2.064, p = .039] <ul style="list-style-type: none"> • Higher score indicates greater wellbeing • Average increase from 6.84 to 8.06 • Gratitude [Z= - 2.108, p = .035] <ul style="list-style-type: none"> • Higher score linked to wellbeing, social functioning, sense of community • Average score increase from 2.31 to 2.71
Clinically significant results by group	
<ul style="list-style-type: none"> • Weight Loss in group (n=7) <ul style="list-style-type: none"> • 51.8 pounds total • 1 participant lost 33.2 pounds • BMI Category Improvement (n=2) • Hypertension screening 	<ul style="list-style-type: none"> • BMI Category Improvement (n=3) • Patient Activation Measure (PAM® - 13) <ul style="list-style-type: none"> • Measures health activation, self-management & engagement • Mean score increase of 0.43
<p>MATCHED-PAIR differences pre and post test</p> <p>Baseline differences only for BMI category, PAM® levels, and weekend steps - indicating the dyad pairs became more congruent at project end.</p>	

Conclusions / Implications

FAMILIES

- Facilitate activation, engagement, and confidence
- Encourage partnerships, social contracts, & participation in care
- Improve biopsychosocial & functional health status in busy families
- Influence health of next generation

MICROSYSTEM

- Contextual and environmental risk factor education / reduction
- Shared insight and best evidence
- Patient, family, and community-centeredness
- Caring, social support & actions leveraged to improve health status
- Collaboration across settings in groups vs. 1:1 office visits
- Efficiency - Reduced appointment and travel times

MACROSYSTEM

- Potential template for practice, policy, & reimbursement change
- Improve population health more rapidly
- Decrease duplication, costs and care fragmentation
- Transcend disciplines & all settings to achieve Quadruple Aim



Acknowledgements:
This project was completed at Arizona State University

Gratitude for:

- **Tim Porter-O'Grady, DM, EDD, APRN, FAAN** (Mentor)
- **Johannah Uriri-Glover, PhD, MSCRN, MNSC, RN** (Statistician)
- **All those who donated time, input and/or discounted materials.**

References upon request