

Can you remember a childhood memory about food and eating?



Can you remember a childhood memory about physical activity?

Do you think those memories have influenced your current eating and activity behaviours?

Do childhood memories related to eating and physical activity have a lasting influence on young adult behaviours?

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An Exploration of the Associations between Childhood Retrospection, Self-efficacy and Outcome Expectancies for Healthy Eating and Physical Active Lifestyle among Young Adults





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BACKGROUND



Eating and Physical Activity Behaviours of Young Adults



Eating behaviours

- Low intakes of fruit, vegetables and grains
- High intakes of fat and sugar foods
- Less than 25% met Canada Food Guide recommendations



Physical Activity

- Physical activity may not be a priority
- Low levels of physical activity



Health Effects

- 30% of students had body mass index (BMI) in the overweight and obese categories, getting closer to the 50% national population rate
- Weight gain and reduced immunity
- Decreased body image, self-confidence & academic productivity
- Chronic health conditions – a growing burden on society

Influences on Healthy Eating and Physical Active Lifestyle

The factors influencing healthy eating and physical active lifestyle decisions made by young adults are a complex combination of motivation and self-regulatory skills influenced by their unique social and physical environments.

Self-efficacy and outcome expectancies were consistently strong predictors of healthy eating behaviours ([Student Meal Study](#)).

Parenting styles and environments play an important role on the development of healthy eating and physical activity behaviours in young children ([Nutrition Standards in Child Care Project](#)).

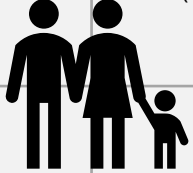


Do childhood memories related to eating and physical activity have a lasting influence on self-efficacy and outcome expectancies for young adult behaviours?



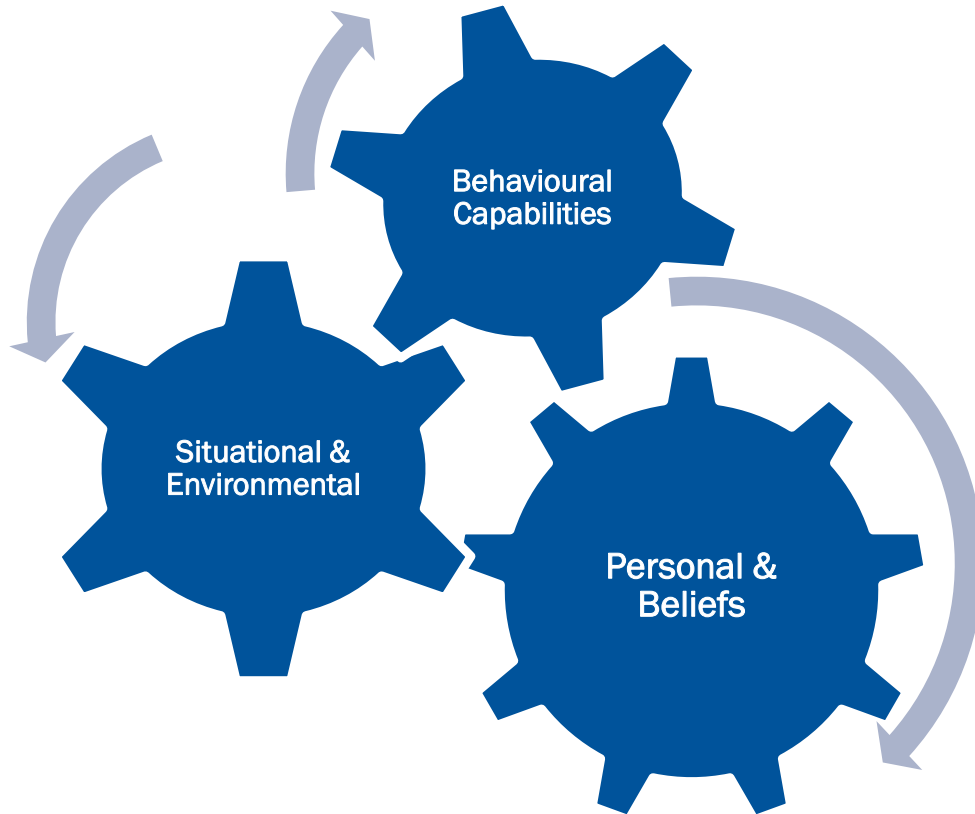
Framework: Parenting Styles

	supportive	unsupportive
demanding	Responsive (democratic, involved, nurturing, structured)	Unresponsive - Authoritarian (controlling, forceful, restrictive, structured)
nondemanding	Unresponsive - Indulgent (permissive, uninvolved, nurturing, unstructured)	Unresponsive - Permissive (neglectful, unengaged, insensitive, unstructured)



(Black & Aboud, 2011)

Framework: Social Cognitive Theory



Self-Efficacy

“belief in your innate ability to achieve goals”

encouraged by enactive mastery experiences, modeling, social persuasion or encouragement and knowledge

Outcome Expectancies

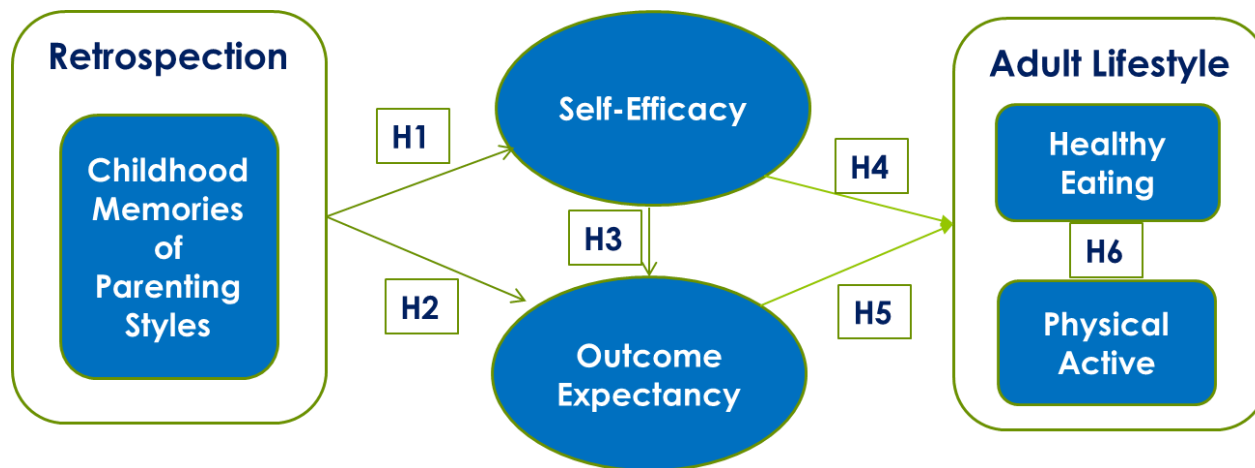
“belief about the likelihood of a behavior leading to a specific outcome”

The SCT postulates that outcome is influenced by the *reciprocal determinism*, between **behavioural**, **situational/environmental** and **personal/beliefs** factors.

(Bandura, 1977)

Objective

To explore the association between childhood memories of parenting styles on current self-efficacy, outcome expectancies and their related impacts on healthy eating and physical active lifestyle of young adults



H1. Memories of parenting styles related to eating and physical activity influences self-efficacy

H2. Memories of parenting styles influences outcome expectancy

H3. Self-efficacy influences outcome expectancy

H4. Self-efficacy influences healthy eating/physical active adult lifestyle

H5. Outcome expectancy influences healthy eating/physical active adult lifestyle

H6. Healthy eating and physical active lifestyles influence each other

Methodology: Quantitative

Developed and tested a questionnaire based on studies of parenting styles, self-efficacy, outcome expectancies and current eating and physical activity behaviours.

MSVU REB #2016-176

MSVU faculty were randomly selected and asked to distribute, to students in their courses, a link to the questionnaire during Fall 2017 and Winter 2018.



Methodology: Quantitative (Questionnaire)

Sample questions; Likert Scale (Strongly disagree to Strongly agree)

When I was a child my parent(s)/caregiver(s) ...

- encouraged me to eat a wide variety of foods
- encouraged me to try foods that I had not tasted before
- gave me something to eat to make me feel better when I was upset
- used desserts as a bribe to get me to eat the main meal

- encouraged me to bicycle for fun
- rewarded me for being physically active
- didn't pressure me to play sports or engage in physical activity
- were physically active themselves



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I am confident that I

- can choose healthy meals/snacks when I am eating out with my friends
- can eat healthy whether I am upset or having a bad day

- can choose to engage in an activity (walk, hike, bike, etc.) with friends
- can follow an active lifestyle whether I am upset or having a bad day



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How important is ... to you?

- reducing your risk for illness and disease
- eating home prepared foods whenever possible

- engaging in at least an average of 30 minutes of physical activity every day
- enjoying physical activity



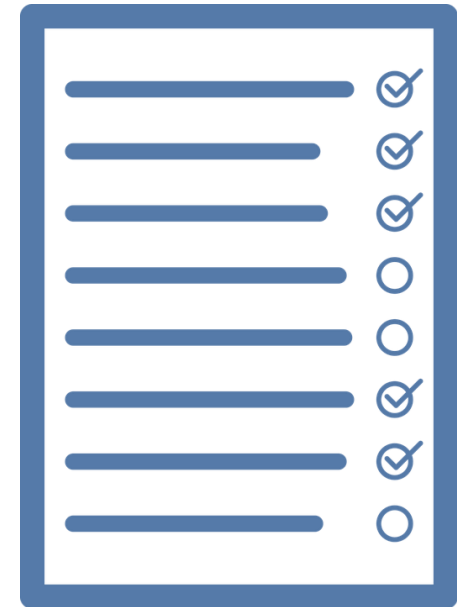
Methodology: Quantitative

Data (n=141) entered into Excel© for data cleaning and then imported into SPSS© for analysis.

Descriptive statistics and scale creation using confirmatory factor analysis for unidimensionality (factor loading $\geq .30$) and reliability (Cronbach's alpha $\geq .60$).

- Responsive scale – 7 items
- Unresponsive scale – 16 items
- Self-efficacy – 17 items
- Outcome expectancy – 19 items
- Healthy eating – 7 items
- Physical activity – 6 items

Scales imported into SmartPLS © for partial least squares regression.



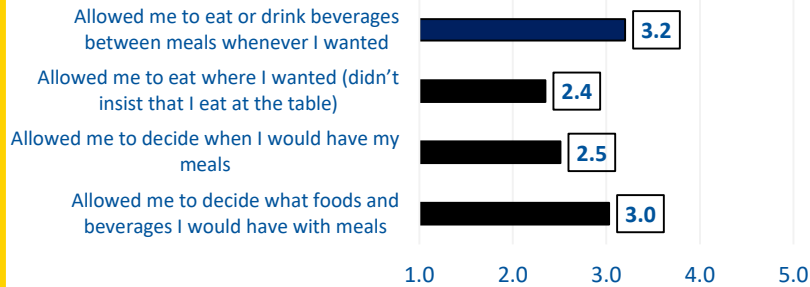
Participants	N=141
Ages	17 - 58 years; mean 22.4
Living	At home 44% Residence or with others 43% On own 10%
BMI	Underweight 7.4% Normal 52.6% OW/OB 40%



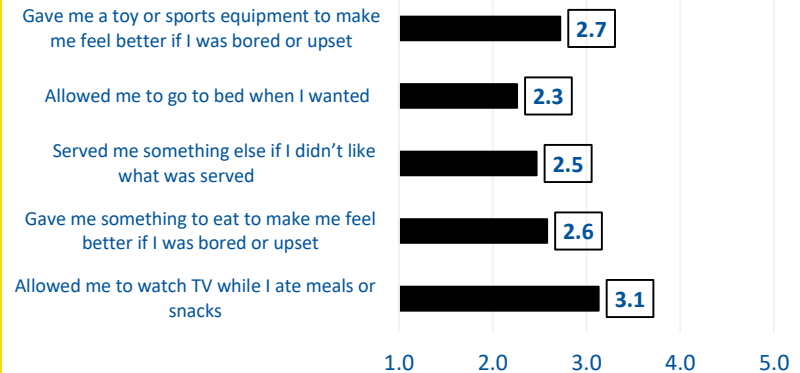
Memories of Parenting Styles

When I was a child my parents or caregivers...

Uninvolved Parenting Style (Unresponsive) Average Rating of Scale Items ($\alpha=.78$)



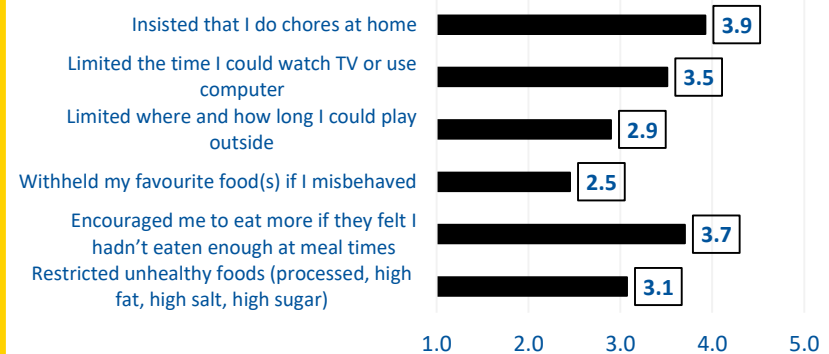
Indulgent Parenting Style (Unresponsive) Average Rating of Scale Items ($\alpha=.64$)



Responsiveness Parenting Style Average Rating of Scale Items ($\alpha=.66$)



Authoritarian Parenting Style (Unresponsive) Average Rating of Scale Items ($\alpha=.59$)



Scale: 1) Strongly disagree, 2) Disagree, 3) Neutral, 4) Agree, 5) Strongly agree

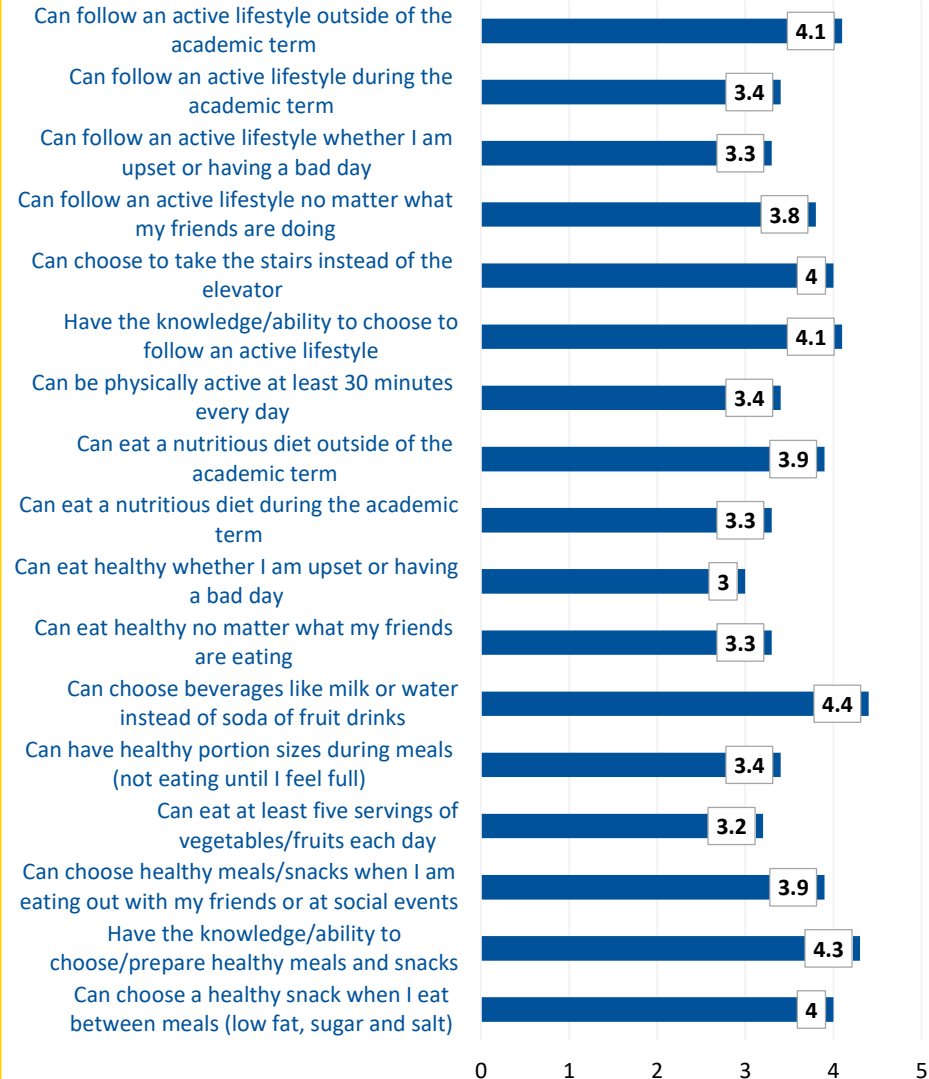
Self-Efficacy Scale

I feel confident that (I)...



Scale: 1) Strongly disagree, 2) Disagree, 3) Neutral, 4) Agree, 5) Strongly agree

Self-Efficacy Scale Average Rating of Scale Items ($\alpha=.89$)



Outcome Expectancy Scale

How important is...



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Scale: 1) Very unimportant, 2) Unimportant, 3) Neutral, 4) Important, 5) Very important

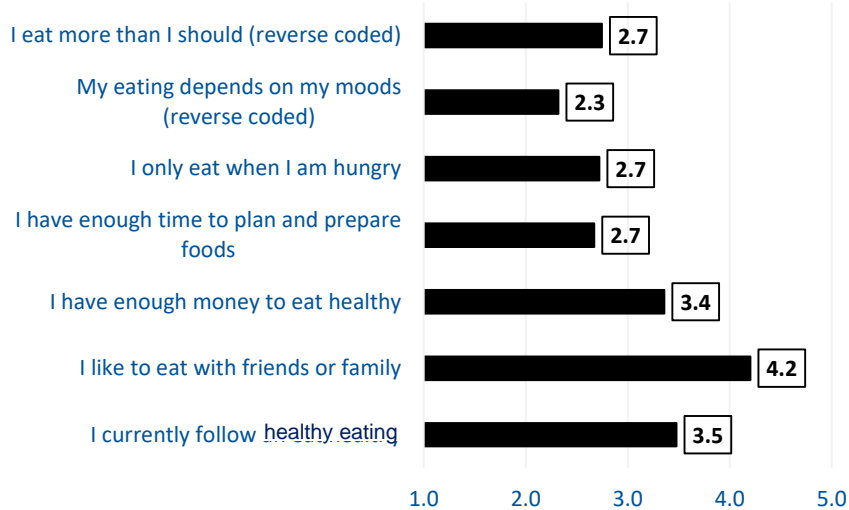
Outcome Expectancy Scale Average Ratings for Scale Items ($\alpha=.89$)



Healthy Eating and Physical Activity Scales

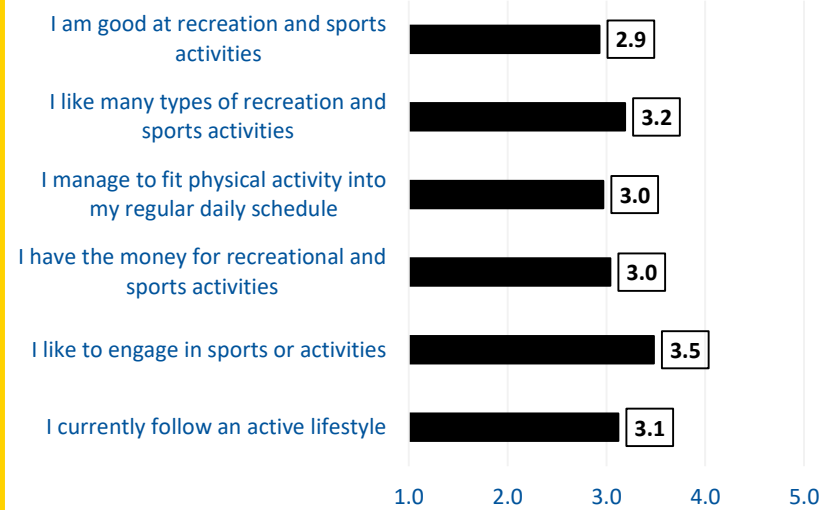
Healthy Eating Scale

Average Ratings for Scale Items ($\alpha=.69$)



Physical Activity Scale

Average Ratings for Scale Items ($\alpha=.79$)

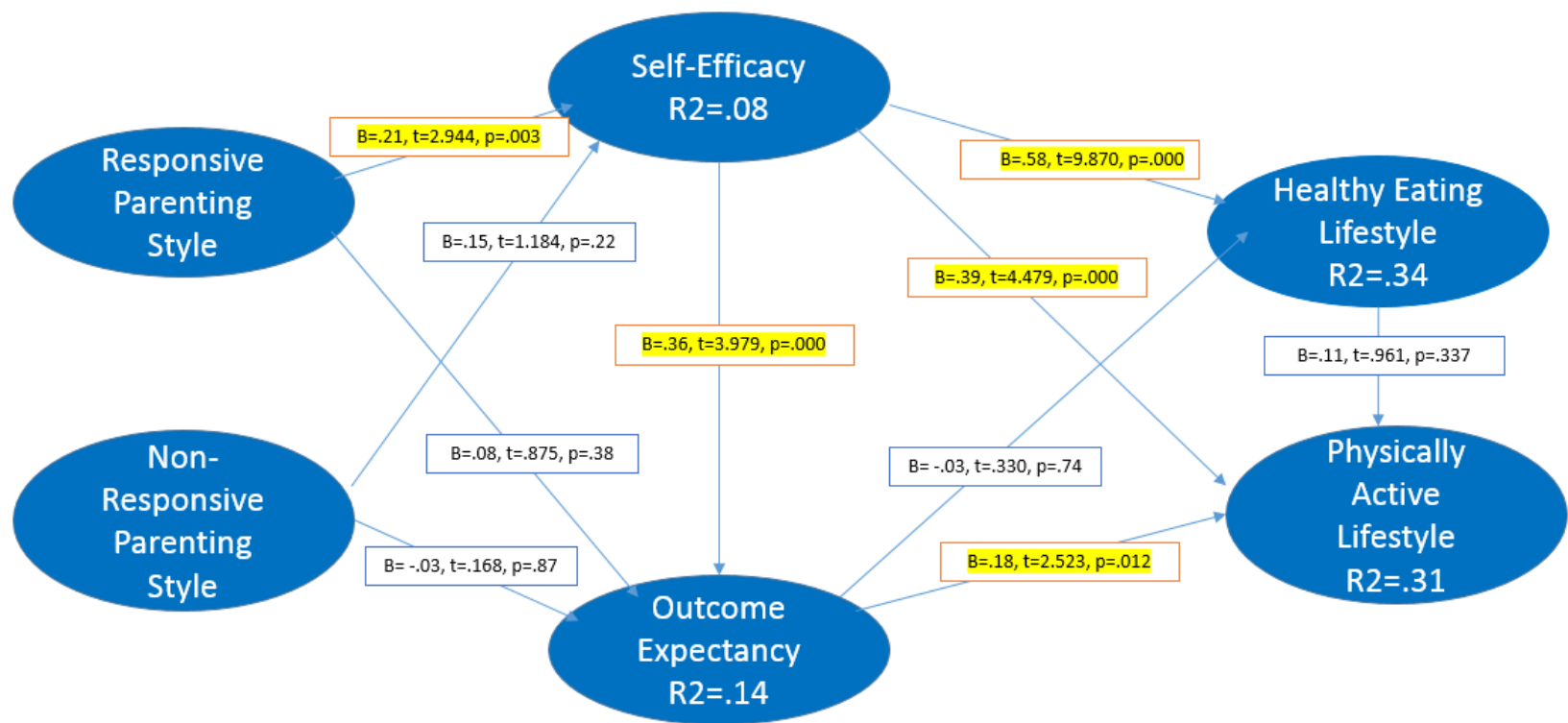


How would you score yourself?

Scale: 1) Strongly disagree, 2) Disagree, 3) Neutral, 4) Agree, 5) Strongly agree



Results – Partial Least Squares Model



Significant @ .05 level or better
 Not statistically significant

Test power for each hypothesis $\geq .85$



Results – Hypotheses (eating and physical activity)

H1. Memories of parenting styles influences self-efficacy

- Significant association between memories of responsive parenting and self-efficacy ($b=.21$, $t=2.944$, $p=.003$)
- No significant association between memories of non-responsive parenting and self-efficacy

H2. Memories of parenting styles influences outcome expectancy

- No significant association between memories of either parenting styles and outcome expectancy

H3. Self-efficacy influences outcome expectancy

- Significant association between self-efficacy and outcome expectancy ($b=.36$, $t=3.979$, $p=.000$)

H4. Self-efficacy influences healthy eating/physical active adult lifestyle

- Significant associations between self-efficacy and healthy eating ($b=.58$, $t=9.870$, $p=.000$) and physical active lifestyle ($b=.39$, $t=4.479$, $p=.000$)

H5. Outcome expectancy influences healthy eating/physical active adult lifestyle

- Significant association between outcome expectancy and physical activity ($b=.18$, $t=2.523$, $p=.012$) but not with healthy eating

H6. Healthy eating and physical active lifestyles influence each other

- No significant associations

Results – Limitations

Childhood memories may not be true experiences; however they serve as a proxy of parenting experiences.

Questions, while based on tested sources, may have missed memories, self-efficacy, outcome expectancies and current lifestyle experiences.

Relatively small sample from one Atlantic Canada university may not be representative of a larger population of young adults. For example, the memories of parenting styles may be biased to the regional culture.

Conclusions and Recommendations

It appears that **memories of responsive parenting** (relationships and environments) have a **positive influence on adult self-efficacy** for healthy eating/physical active adult lifestyle behaviours.

Self-efficacy and outcome expectancies in turn have **positive influences on healthy eating and physical activity behaviours**.

Interventions to promote self-efficacy and outcome expectancies for healthy eating and physical active lifestyle should also encourage **self-reflection on childhood experiences** related to these behaviours.

Public education programs should be developed to promote responsive parenting in the early years.

What would you include in these interventions or programs?



It is the hope of parents that the children in their care will develop a healthy lifestyle. Giving the youth of today responsive parenting knowledge can help make this hope a reality for the future generations.

Thank you for listening!

Questions?



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Blotnicky K, Mann L. (2020). Do childhood memories related to eating and physical activity have a lasting influence on young adult behaviors? *College Student Journal*, 54(3), 339-356.