Course Description:
The purpose of this presentation is to present findings on the health profiles of students enrolled at a faith-based university. METHODS: Data were collected using a modified version of the Health Lifestyle Enhancement Profile (HELP) and HELP-Screener. Participants were 323 allied health students of which 64% were female and 36% male, with ages ranging from 19-51 years. RESULTS: Results showed that 34.1% of students perceived their health as excellent and 57.2% as good. It was further detected that high ratings of health were positively correlated with high ratings of happiness. Additionally, students who reported frequent exercise and a healthy diet scored more favourably across all measures of health in comparison to those who reported less frequent exercise and poorer dietary habits. Descriptive analysis revealed that 46.6% of students identified having at least one health problem with back and neck pain being the most prevalent, followed by anxiety and sleep disturbance. Less than half of the study sample reported monitoring their health regularly, avoiding unhealthy foods, avoiding sedentary activities and engaging in community activities. CONCLUSIONS: Together, findings provide consideration for future university-based interventions and point to the importance of supporting students’ health for promoting their overall well-being and happiness.
LEARNING OBJECTIVES

1. Describe the health profiles of allied health students enrolled at a faith-based university.
2. Identify sub-groups of students who are most vulnerable to lifestyle related health risks.
3. Describe interventions that can be implemented through university-based initiatives to improve student health.

STUDENT LIFESTYLE BEHAVIORS

- Independence
- Demands
- Managing Finances
- Extra-curricular Activities
- Relationships
QUESTION

- Are these factors related to students’ health?
- How do these increasing demands impact students’ health?

TRENDS AMONG STUDENTS IN PUBLIC UNIVERSITIES

- Physical Activity
  - 18-32% of male students and 13-22% of female students meet exercise guidelines

- Unhealthy Eating
  - Diet high in fat, sugar, and sodium
  - Increase in drinking and smoking
  - High caffeine usage

- Sleep
  - Quality
  - Quantity

- Risk Taking Behaviors
  - Fast driving
  - Contact sports
  - Substance use and abuse

HEALTH AND SPIRITUALITY

- Religiosity
- God locus of control
- Spiritual well-being
- Faith
What does it mean to be healthy?

Health and Spirituality

Allied Health Students

Exercise  Diet  Sleep
Social Correct actions
Avoiding Risk Taking Behavior
Leisure
Community Part.
Happiness
Gratitude

Exercise  Diet  Sleep
Social Correct actions
Avoiding Risk Taking Behavior
Leisure
Community Part.
Happiness
Gratitude
PARTICIPANTS

- Of the 338 distributed surveys, 323 were completed and returned, representing a response rate of 95.56%.
- Survey respondents were full-time students who were enrolled in one of the following allied health programs: Nutrition and Dietetics, Occupational Therapy, Physical Therapy, or Radiation Sciences with degrees ranging from associates to doctorate.

DEMOGRAPHIC DETAILS OF PARTICIPANTS, N = 323

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26.79 (5.29)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>208</td>
<td>64.4%</td>
</tr>
<tr>
<td>Male</td>
<td>115</td>
<td>35.6%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>117</td>
<td>36.8%</td>
</tr>
<tr>
<td>African American</td>
<td>9</td>
<td>2.8%</td>
</tr>
<tr>
<td>Asian American/Pacific Islander</td>
<td>114</td>
<td>35.8%</td>
</tr>
<tr>
<td>Native American</td>
<td>5</td>
<td>1.6%</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>49</td>
<td>9.6%</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>11</td>
<td>3.5%</td>
</tr>
<tr>
<td>Other</td>
<td>62</td>
<td>19.2%</td>
</tr>
</tbody>
</table>

DEMOGRAPHIC DETAILS OF PARTICIPANTS, N = 323

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>129</td>
<td>39.9%</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>117</td>
<td>36.2%</td>
</tr>
<tr>
<td>Science in Radiation Sciences</td>
<td>55</td>
<td>16.7%</td>
</tr>
<tr>
<td>Nutrition and Dietetics</td>
<td>23</td>
<td>7.1%</td>
</tr>
<tr>
<td>Program level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>108</td>
<td>32.7%</td>
</tr>
<tr>
<td>Year 2</td>
<td>79</td>
<td>24.5%</td>
</tr>
<tr>
<td>Year 3</td>
<td>59</td>
<td>18.3%</td>
</tr>
<tr>
<td>Post Professional</td>
<td>47</td>
<td>14.6%</td>
</tr>
</tbody>
</table>
**Instrument**

- Health Enhancement Lifestyle Profile (HELP) and the HELP-Screener
  - Originally for over 55
  - Modified for young adults & adults
  - Focus group with target population
  - Content expert Review
- 68-item modified-HELP

---

**Modified HELP**

- Exercise (7 items)
- Diet (14 items)
- Community and social participation (6 items)
- Leisure (11 items)
- Activities of daily living (8 items)
- Stress management and spiritual participation (7 items)
- Health promoting behaviors (5 items)
- Life satisfaction and happiness scale (4 items)
- Work and study satisfaction scale (6 items)

---

**Modified HELP**

- The activities of daily living scale was omitted due to an alpha coefficient score of .45.
- Coefficient scores for all other scales ranged from .66 to .74, indicating acceptable internal consistency.
HELP-SCREENER

- 18-items
- Condensed version of the modified-HELP questionnaire
- Uses “yes” or “no” responses
- Example item “I exercise more than twice a week”.

DATA ANALYSIS

- SPSS version 22
- Descriptive analysis
- Pearson correlation coefficients
- Chi-square tests
- Independent samples t-tests
- One-way Independent samples ANOVAs
- Two step cluster analysis using diet and exercise
  - Subsequently, one-way Independent samples ANOVAs
to explore differences between groups

RESULTS - OVERALL HEALTH

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>109</td>
<td>34.1%</td>
</tr>
<tr>
<td>Good</td>
<td>183</td>
<td>57.2%</td>
</tr>
<tr>
<td>Fair</td>
<td>27</td>
<td>8.6%</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
**SIGNIFICANT ASSOCIATIONS**

- Health status and exercise ($F(2, 316) = 12.78, p < .001$)
- Health status and work and education satisfaction ($F(2, 286) = 9.03, p < .001$)
- Health status and life satisfaction and happiness ($F(2, 310) = 1.53, p < .001$)

**RESULTS**

- Students who reported spending more time in sedentary activities were more likely to report a health problem ($\chi^2 (2) = 8.06, p < .05$).
- Most commonly reported health condition was back and neck pain ($n = 44$), followed by anxiety ($n = 39$), sleep problems ($n = 17$), depression ($n = 16$), and respiratory problems ($n = 15$).
CLUSTER ANALYSIS BASED ON EXERCISE AND DIET

- Two-step cluster analysis

- Infrequent exercise and unhealthy diet (n = 85, 26.8%)
- Infrequent exercise and healthy diet (n = 155, 48.9%)
- Frequent exercise and healthy diet (n = 77, 24.3%)

DEMOGRAPHIC VARIABLES & HEALTH

- Healthier diet
- Higher stress management & spiritual participation
- Avoid risk taking behaviors
- Read nutritional facts labels

- Females
  - More time spent in leisure

- Males
DEMOGRAPHIC VARIABLES & HEALTH

Older Students

- Married
- Divorced
- Lower life satisfaction & happiness
- Have children
- Less exercise
- Full-time caregiver
- Less exercise
- Employed full-time
- Work more hours per week
- Poorer diet
- Less community & social participation
- Less time spent in leisure
- Lower stress management & spiritual participation

BEFORE WE GO ON...

☆ What results stand out to you most?
☆ Do you see any possible areas for intervention?
  + How could we teach & promote health at the same time 😊

THE POSITIVES

☆ Institutional values of the university which emphasize physical, emotional and spiritual health.
☆ Students may adopt and internalize these values as they immerse themselves in the culture of the university. Implementing health-related institutional values may thus be an important step towards creating healthier trends among university students.
AREAS OF CONCERN

- Over half of the students indicated insufficient exercise
- Only 38% of students reported avoiding sedentary activities

Sitting Disease

- Musculoskeletal disorders
- Cardiovascular disease
- Cancer
- DM Type 2
- Premature death

AREAS OF CONCERN

- Sleep
  - Only 59% of the students reported getting at least 7 hours of quality sleep per night
  - Over half the study sample reported feeling tired or needing a nap at least 3-4 days per week
  - 15 students reported having sleep problems
- Monitoring health
  - Only 46% of students reported monitoring their health regularly
- Diet
  - More than half of the student sample indicated that they eat foods that are high in fats, cholesterol, sodium or sugar
VULNERABLE SUB-GROUPS

- Infrequent exercise & unhealthy diet
- Infrequent exercise & healthy diet
- Mature aged students

TEACHING & PROMOTING HEALTH

- Think about integrating breaks, stretches and exercise
- Ergonomic design (OT visit)
- Bringing candy to class?
- Providing support with stress management
- Early detection of problems
- Encouraging health monitoring
- Focus on spirituality

LIMITATIONS OF THE STUDY

- Cross-sectional
- Single-institution
- Self-report
- Pressure to complete surveys in class time
CONCLUSION

- While several positive health trends were noted, a number of areas were highlighted that require consideration when designing university-based health promotion programming.
- Particular attention should be paid towards reducing the amount of time spent in sedentary activities, offering healthy food options, promoting sleep and rest, and providing additional support for mature aged students.

REFERENCES

LEARNING OBJECTIVES

1. Describe the health profiles of allied health students enrolled at a faith-based university.
2. Identify sub-groups of students who are most vulnerable to lifestyle related health risks.
3. Describe interventions that can be implemented through university-based initiatives to improve student health.

STUDENT LIFESTYLE BEHAVIORS

- Independence
- Demands
- Mental Health
- Extra-curricular activities
- Relationships
QUESTION

- Are these factors related to students’ health?
- How do these increasing demands impact students’ health?

TRENDS AMONG STUDENTS IN PUBLIC UNIVERSITIES

- Physical Activity
  - 18-22% of male students and 13-22% of female students meet exercise guidelines

- Unhealthy Eating
  - Diet high in fat, sugar, and sodium
  - Increase in drinking and smoking
  - High caffeine usage

- Sleep
  - Quality
  - Quantity

- Risk Taking Behaviors
  - Fast driving
  - Contact sports
  - Substance use and abuse

HEALTH AND SPIRITUALITY

- Religiosity
- God locus of control
- Spiritual well-being
- Faith
HEALTH

What does it mean to be healthy?

LIVE HEALTHY

HEALTH AND SPIRITUALITY

Exercise
Diet
Sleep
Given
Happiness
Community
Participation
Leisure
Avoiding Risk
Taking Behavior
Social Connectedness

ALLIED HEALTH STUDENTS

??
PARTICIPANTS

- Of the 338 distributed surveys, 323 were completed and returned, representing a response rate of 95.56%.
- Survey respondents were full-time students who were enrolled in one of the following allied health programs: Nutrition and Dietetics, Occupational Therapy, Physical Therapy, or Radiation Sciences with degrees ranging from associates to doctorate.

DEMOGRAPHIC DETAILS OF PARTICIPANTS, N = 323

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
<th>M(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26.79(5.29)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>208</td>
<td>64.4%</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>115</td>
<td>35.6%</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>117</td>
<td>36.8%</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>9</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>Asian American/ Pacific Islander</td>
<td>114</td>
<td>35.8%</td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>5</td>
<td>1.6%</td>
<td></td>
</tr>
<tr>
<td>Mexican American</td>
<td>40</td>
<td>8.0%</td>
<td></td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>11</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>62</td>
<td>19.1%</td>
<td></td>
</tr>
</tbody>
</table>

DEMOGRAPHIC DETAILS OF PARTICIPANTS, N = 323

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapy</td>
<td>129</td>
<td>39.9%</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>117</td>
<td>36.2%</td>
</tr>
<tr>
<td>Science in Radiation Sciences</td>
<td>51</td>
<td>15.7%</td>
</tr>
<tr>
<td>Nutrition and Dietetics</td>
<td>23</td>
<td>7.1%</td>
</tr>
<tr>
<td>Program level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1</td>
<td>108</td>
<td>32.7%</td>
</tr>
<tr>
<td>Year 2</td>
<td>75</td>
<td>23.5%</td>
</tr>
<tr>
<td>Year 3</td>
<td>55</td>
<td>17.1%</td>
</tr>
<tr>
<td>Post Professional</td>
<td>67</td>
<td>20.8%</td>
</tr>
</tbody>
</table>
INSTRUMENT

- Health Enhancement Lifestyle Profile (HELP) and the HELP-Screener
  - Originally for over 55
  - Modified for young adults & adults
  - Focus group with target population
  - Content expert Review
- 68-item modified-HELP

MODIFIED HELP

- Exercise (7 items)
- Diet (14 items)
- Community and social participation (6 items)
- Leisure (11 items)
- Activities of daily living (8 items)
- Stress management and spiritual participation (7 items)
- Health promoting behaviors (5 items)
- Life satisfaction and happiness scale (4 items)
- Work and study satisfaction scale (6 items)

MODIFIED HELP

- The activities of daily living scale was omitted due to an alpha coefficient score of .45.
- Coefficient scores for all other scales ranged from .66 to .74, indicating acceptable internal consistently.
HELP-Screener

- 18-items
- Condensed version of the modified-HELP questionnaire
- Uses “yes” or “no” responses
- Example item “I exercise more than twice a week”.

DATA ANALYSIS

- SPSS version 22
- Descriptive analysis
- Pearson correlation coefficients
- Chi-square tests
- Independent samples t-tests
- One-way Independent samples ANOVAs
- Two step cluster analysis using diet and exercise
  - Subsequently, one-way Independent samples ANOVAs to explore differences between groups

RESULTS - OVERALL HEALTH

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>109</td>
<td>34.1%</td>
</tr>
<tr>
<td>Good</td>
<td>183</td>
<td>57.2%</td>
</tr>
<tr>
<td>Fair</td>
<td>27</td>
<td>8.4%</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
SIGNIFICANT ASSOCIATIONS

- Health status and exercise ($F(2, 316) = 12.78, p < .001$)
- Health status and work and education satisfaction ($F(2, 286) = 9.03, p < .001$)
- Health status and life satisfaction and happiness ($F(2, 310) = 1.53, p < .001$)

RESULTS

- Students who reported spending more time in sedentary activities were more likely to report a health problem ($\chi^2(2) = 8.06, p < .05$).
- Most commonly reported health condition was back and neck pain ($n = 44$), followed by anxiety ($n = 39$), sleep problems ($n = 17$), depression ($n = 16$), and respiratory problems ($n = 15$).
CLUSTER ANALYSIS BASED ON EXERCISE AND DIET

- Two-step cluster analysis

- Infrequent exercise and unhealthy diet (n = 85, 26.8%)
- Infrequent exercise and healthy diet (n = 155, 48.9%)
- Frequent exercise and healthy diet (n = 77, 24.3%)

CLUSTER ANALYSIS BASED ON EXERCISE & DIET

DEMOGRAPHIC VARIABLES & HEALTH

- Healthier diet
- Higher stress management & spiritual participation
- Avoid risk taking behaviors
- Read nutritional facts labels

Females:
- More time spent in leisure

Males:
DEMOGRAPHIC VARIABLES & HEALTH

Older Students

• Married
• Divorced
• Lower life satisfaction & Happiness
• Have children
• Less exercise
• Full-time caregiver
• Less exercise
• Employed full-time
• Work more hours per week
• Poor diet
• Less community & social participation
• Less time spent in leisure
• Lower stress management & spiritual participation

BEFORE WE GO ON...

• What results stand out to you most?
• Do you see any possible areas for intervention?
  + How could we teach & promote health at the same time 😊

THE POSITIVES

• Institutional values of the university which emphasize physical, emotional and spiritual health.
• Students may adopt and internalize these values as they immerse themselves in the culture of the university. Implementing health-related institutional values may thus be an important step towards creating healthier trends among university students.
AREAS OF CONCERN

- Over half of the students indicated insufficient exercise
- Only 38% of students reported avoiding sedentary activities

AREAS OF CONCERN

Sitting Disease

- Musculoskeletal disorders
- Cardiovascular disease
- Cancer
- DM Type 2
- Premature death

AREAS OF CONCERN

- Sleep
  - Only 59% of the students reported getting at least 7 hours of quality sleep per night
  - Over half the study sample reported feeling tired or needing a nap at least 3-4 days per week
  - 15 students reported having sleep problems

- Monitoring health
  - Only 46% of students reported monitoring their health regularly

- Diet
  - More than half of the student sample indicated that they eat foods that are high in fats, cholesterol, sodium or sugar
VULNERABLE SUB-GROUPS

- Infrequent exercise & unhealthy diet
- Infrequent exercise & healthy diet
- Mature aged students

TEACHING & PROMOTING HEALTH

- Think about integrating breaks, stretches and exercise
- Ergonomic design (OT visit)
- Bringing candy to class?
- Providing support with stress management
- Early detection of problems
- Encouraging health monitoring
- Focus on spirituality

LIMITATIONS OF THE STUDY

- Cross-sectional
- Single-institution
- Self-report
- Pressure to complete surveys in class time
CONCLUSION

While several positive health trends were noted, a number of areas were highlighted that require consideration when designing university-based health promotion programming.

Particular attention should be paid towards reducing the amount of time spent in sedentary activities, offering healthy food options, promoting sleep and rest, and providing additional support for mature aged students.

REFERENCES