Effects of COVID-19 on Health Sciences Students

Stacy Stolzman, PhD, PT
David Wrucke, MU Undergraduate Student
April Harkins, PhD, MT(ASCP)
Marie Hoeger Bement, PhD, PT
Sandra Hunter, PhD, FACSM
Astrida Kaugars, PhD
Background

- **COVID-19**
  
- **Negative Psychological Impact on Health Care Workers**
  
- **Need for Future Health Care Workers**

- **Challenges for Current Health Care Students**

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Research Aims

- To determine the physical activity patterns and mental health functioning of CUW Health Professions and MU Health Sciences students during the COVID-19 pandemic

- To identify if these students changed their commitment to their profession due to the COVID-19 pandemic and why?
Methods

- Online Qualtrics Survey: 7/16/2020 – 8/12/2020
- Questionnaires
  - Depression (Patient Health Questionnaire-9)
  - Anxiety (General Anxiety Disorder-7)
  - Coronavirus Threat (Perceived Coronavirus Threat Questionnaire)
  - Career Commitment (Blau’s Career Commitment Scale 1988)
  - Physical Activity (Godin Physical Activity Questionnaire)
  - Demographics (age, sex, gender, race, ethnicity, year in school, and program of study)
Demographics

- **297 Students**
  - Age: 21.6 ± 3.1 years (18-42 years)
  - 84% Female / 16% Male
  - 85% White / 8% Asian / 5% Hispanic / 2% Black / Other <1%
  - 69% MU / 31% CUW
  - 54% Undergraduate / 46% Graduate/Professional
Anxiety & depression correlated with low career commitment

Anxiety & depression were correlated with high perceived coronavirus threat

Female students had higher anxiety, depression, and perceived coronavirus threat

Coronavirus Threat = 27.9 ± 7.6
Possible Scores 6-42
Reasons for Change in Career Interest

- 59% online learning
- 56% ability to make a difference
- 56% ability to secure clinical placements
- 41% mental health
- 38% health risks
- 38% finances
- 28% family pressure
## Differences Between Students With & Without Changed Career Interests

<table>
<thead>
<tr>
<th></th>
<th>Total Participants (n=297)</th>
<th>Participants whose career interest changed (n=32)</th>
<th>Participants whose career interest did not change (n=265)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Commitment (5-35)</td>
<td>29.2 ± 4.0</td>
<td>26.8 ± 4.8 ($p &lt; 0.001$)</td>
<td>29.5 ± 3.8</td>
</tr>
<tr>
<td>Coronavirus Threat (6-42)</td>
<td>27.9 ± 7.6</td>
<td>27.7 ± 8.5</td>
<td>27.9 ± 7.5</td>
</tr>
<tr>
<td>Depression: PHQ-9 (0-27)</td>
<td>7.1 ± 5.5</td>
<td>9.7 ± 5.4 ($p = 0.005$)</td>
<td>6.8 ± 5.5</td>
</tr>
<tr>
<td>Anxiety: GAD-7 (0-21)</td>
<td>7.2 ± 5.3</td>
<td>8.4 ± 5.3</td>
<td>7.0 ± 5.3</td>
</tr>
</tbody>
</table>
Physical Activity

- Physical activity (mild and mod/intense levels) was greater in Summer 2020 than Jan-Feb 2020 or March-May 2020
- Students engaged in more moderate/intense physical activity during Summer 2020 reported less anxiety ($r = -0.208$, $p=0.001$) and less depression ($r = -0.216$, $p<0.001$)
Conclusions / Implications

- Students studying health professions are experiencing depression, anxiety and thoughts of career change due to COVID-19

- Moderate/intense physical activity participation is associated with less anxiety and depression

- Health Profession programs should be aware of these concerns and provide student support to maintain the future healthcare workforce.


Thank You to the many students from CUW Health Professions & MU Health Sciences who participated in the study

Thank you to my MU COVID-19 Research Initiative & my MU collaborators

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Questions?