Impacts of excessive workload on student mental health
Presentation Agenda

Presentation expected to last about 20 min

1 - Introduction of QCESCO
   - Who are we?
   - Why are we present today?

2 - QCESCO 2017 Mental Health Survey
   - Methodology
   - The survey in numbers - Results

3 - Mental Health Previous Researches
   - Other research in the field
   - Recommendations
1- QCESCO
Why are we here today

Recent study in University of Montreal shows that 22% of students have symptoms of depression high enough to start treatment.

According to the World Health Organization, mental health related problem will be the first cause of disability by 2020.
QCESO :

�� Our members:
  • All of the 23 500 engineering students of Quebec;
  • 13 member student societies;

�� Our mission:
  • Student advocacy
  • Provide services for its member associations
  • Planning of large scale engineering events
QCESO’s Student Advocacy:

Quality of education:
- Teaching of ethics and deontology
- Continuous improvement of programs
- Teacher evaluation
- Renewal of class content

Student’s quality of life:
- Mental health on campus
- Student workload

Accessibility to education:
- Funding of universities
- Integration of foreign students
Timeline

Methodology

- Request from members: April 2016
- Production of the survey: September 2016
- Revision of the survey by:
  - Polytechniques Student ressource center
  - A psychologist: October 2016
- Launch of the Survey and Analysis by a Master Student: November 2016

Other research

Presence today
Numbers

Methodology

- Population: 20,058 engineering students
- 15.7% response rate
- Excellent overall margin of error of below 1.34%
- Confidence level of 90%

The analysis of this study excludes McGill and Concordia universities.
Adaptive Measures

Results

Q2 Do you have a diagnosed learning handicap (ADHD, dyslexia, other) or another handicap (impaired hearing, impaired sight, other).

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes and I receive adaptive measures from my university</td>
<td>4.60%</td>
<td>146</td>
</tr>
<tr>
<td>Yes but I don't receive any adaptive measures from my university</td>
<td>5.80%</td>
<td>182</td>
</tr>
<tr>
<td>No</td>
<td>87.50%</td>
<td>2763</td>
</tr>
<tr>
<td>I would rather not answer</td>
<td>2.10%</td>
<td>67</td>
</tr>
</tbody>
</table>

More than 50% of students declaring a diagnosed handicap do not receive any adaptive measures.
My Faculty Cares About my Well being?

Results

Q10 Do you agree with the above statement?

- 44% Agree and strongly agree
- 35% Do not agree nor disagree
- 20% Disagree or strongly disagree
# Characterization of Stress

## Results

**Compared to CEGEP, how would you describe the stress related to your engineering studies?**

<table>
<thead>
<tr>
<th></th>
<th>A lot less stressful</th>
<th>Less stressful</th>
<th>Similar</th>
<th>More stressful</th>
<th>A lot more stressful</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q11</td>
<td>74</td>
<td>240</td>
<td>396</td>
<td>1128</td>
<td>891</td>
<td>2729</td>
</tr>
<tr>
<td></td>
<td>2.7 %</td>
<td>8.8 %</td>
<td>12.5 %</td>
<td>41.3 %</td>
<td>32.6 %</td>
<td></td>
</tr>
</tbody>
</table>

**On the following scale, how would you describe the stress related to your engineering studies?**

<table>
<thead>
<tr>
<th></th>
<th>Very low</th>
<th>Low</th>
<th>Neutral</th>
<th>High</th>
<th>Very high</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q12</td>
<td>18</td>
<td>127</td>
<td>494</td>
<td>1486</td>
<td>617</td>
<td>2750</td>
</tr>
<tr>
<td></td>
<td>0.6 %</td>
<td>4.6 %</td>
<td>17.9 %</td>
<td>0.54 %</td>
<td>0.22 %</td>
<td></td>
</tr>
</tbody>
</table>

**How is the impact of stress on yourself?**

<table>
<thead>
<tr>
<th></th>
<th>Very positive</th>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
<th>Very negative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q13</td>
<td>26</td>
<td>336</td>
<td>589</td>
<td>1324</td>
<td>481</td>
<td>2748</td>
</tr>
<tr>
<td></td>
<td>0.9 %</td>
<td>12.2 %</td>
<td>21.4 %</td>
<td>48.1 %</td>
<td>17.5 %</td>
<td></td>
</tr>
</tbody>
</table>
## Causes of Stress

### Results

**Q15** What elements in your studies are causing you to stress?

<table>
<thead>
<tr>
<th>Element</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance pressure (the need to succeed)</td>
<td>68.1%</td>
<td>1858</td>
</tr>
<tr>
<td>The amount of classes having to be taken per semester</td>
<td>29.5%</td>
<td>806</td>
</tr>
<tr>
<td>The difficulty of classes (the fear of not succeeding)</td>
<td>57.4%</td>
<td>1567</td>
</tr>
<tr>
<td>The fear of having to lengthen the curriculum</td>
<td>37.4%</td>
<td>1022</td>
</tr>
<tr>
<td>Finding an internship</td>
<td>37.0%</td>
<td>1009</td>
</tr>
<tr>
<td>Workload</td>
<td>72.7%</td>
<td>1986</td>
</tr>
<tr>
<td>Midterm exam session and final exam session</td>
<td>66.0%</td>
<td>1801</td>
</tr>
<tr>
<td>Team projects and assignments</td>
<td>29.0%</td>
<td>792</td>
</tr>
</tbody>
</table>

Workload is always defined as: number of assignments, simultaneous deadlines, required reading, etc.
Characterization of Stress
Analysis

To answer common argument we face ...

- 85% of students consider stress as negative or strongly negative.
- Of students considering stress as neutral, 70% of them do not find it negative.
- Of students having a high stress level, 70% consider it to be negative.
- Of students having a very high stress level, 92% consider it to be negative.
- 50% of students having very high stress consider it to be very negative.

A little stress is good, high stress impacts performances.
## Impact of Stress

### Results

**Q14** Generally, what is the impact of stress on you?

<table>
<thead>
<tr>
<th>Impact</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased appetite</td>
<td>27,3%</td>
<td>739</td>
</tr>
<tr>
<td>Increased bad eating habits (fast food, sweets, etc.)</td>
<td>53,5%</td>
<td>1448</td>
</tr>
<tr>
<td>Difficulty sleeping</td>
<td>64,0%</td>
<td>1732</td>
</tr>
<tr>
<td>Difficulty concentrating on tasks</td>
<td>56,1%</td>
<td>1518</td>
</tr>
<tr>
<td>Difficulty in prioritizing</td>
<td>42,8%</td>
<td>1158</td>
</tr>
<tr>
<td>Decline in academic results / Failing classes</td>
<td><strong>41,2%</strong></td>
<td><strong>1116</strong></td>
</tr>
<tr>
<td>Increase in alcohol consumption</td>
<td>18,9%</td>
<td>511</td>
</tr>
<tr>
<td>Consumption of non-prescribed medication and/or drugs</td>
<td>7,4%</td>
<td>201</td>
</tr>
<tr>
<td>Demotivation</td>
<td><strong>58,7%</strong></td>
<td><strong>1589</strong></td>
</tr>
<tr>
<td>Social isolation</td>
<td>34,5%</td>
<td>933</td>
</tr>
<tr>
<td>Thoughts of abandoning everything</td>
<td>44,2%</td>
<td>1196</td>
</tr>
<tr>
<td>Impression of depression</td>
<td>44,2%</td>
<td>1196</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td><strong>6,9%</strong></td>
<td><strong>186</strong></td>
</tr>
</tbody>
</table>
Characterization of workload

Analysis

• The proportion of students estimating their program workload to be appropriate is 43.8%.
• The proportion of students estimating their program workload to be too high is 54.0%.

• Workload as a cause of stress is significantly higher for student considering stress as negative and very negative.
• Whenever workload is estimated to be higher, waiting time for psychologist is higher.
Stress and Gender

Analysis

- The proportion of women estimating workload to be too high is significantly higher than for men.
  - The proportion of women estimating the stress caused by their studies to be too high is 7% higher than men.
- The proportion of women feeling part of the university’s community is significantly higher.
Mental Health Resources
<table>
<thead>
<tr>
<th>Service</th>
<th>YES</th>
<th>NO</th>
<th>I Don't Know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual meetings with a psychologist (About 5 appointments)</td>
<td>931</td>
<td>117</td>
<td>1979</td>
<td>3027</td>
</tr>
<tr>
<td>Individual meetings with a psychologist (More than 5 appointments)</td>
<td>364</td>
<td>249</td>
<td>2408</td>
<td>3021</td>
</tr>
<tr>
<td>Emergency meetings with a psychologist</td>
<td>493</td>
<td>184</td>
<td>2324</td>
<td>3001</td>
</tr>
<tr>
<td>Group meetings with a psychologist (in less than 48 hours)</td>
<td>86</td>
<td>202</td>
<td>2732</td>
<td>3020</td>
</tr>
</tbody>
</table>
Mental Health Services

Results

For the following services, indicate which one of them you have used

<table>
<thead>
<tr>
<th>Use of Mental Health Services</th>
<th>11.0%</th>
<th>317</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Individual Meetings</td>
<td>2.2%</td>
<td>63</td>
</tr>
<tr>
<td>Group Meetings</td>
<td>1.1%</td>
<td>32</td>
</tr>
<tr>
<td>Workshops</td>
<td>12.6%</td>
<td>362</td>
</tr>
<tr>
<td>None</td>
<td>1.10%</td>
<td>2359</td>
</tr>
</tbody>
</table>
Mental Health Services

Results

Individual Meetings With a Psychologist

3017 Students

Q5 Is the service offered?

- YES: 931 (31.0%)
- NO: 117 (3.9%)
- IDK: 1979 (65.1%)

Q6 Have you used this service?

- YES: 317 (10.5%)
- NO: 2700 (89.5%)

Q7 34.3% of students requesting an individual meeting said the delay was too long or way too long compared to their expectations.
Our other researches:

- **Best practices on mental health**:  
  - 31 Intervention Components

- **Portrait of Quebec services**:  
  - Services provided within these 31 Intervention Components  
  - Waiting list delays  
  - Internal politics  
  - Action plans  
  - And more
Best practices:

- Institutional structure: organization, planning and policy
- Supportive, inclusive campus climate and environment
- Mental health awareness
- Community capacity to respond to early indicators of student concern
- Self-management competencies and coping skills
- Accessible mental health services
- Crisis management

- All students: 15
- Students with concerns about coping: 7
- Students with mental health concerns: 9
Goal of this presentation:

- Cultural change comes when …
- Sensitize to issues
Impacts of Excessive Workload on Student Mental Health
Part 2 – Zenon Kripki, CFES President

Engineers Canada Board Meeting – Ottawa – 26 Sep 2017
AGENDA

1 Overview of the CFES National Survey
   - What is it?
   - What are we asking and why?
   - How are we distributing the survey?

2 Expected Outcomes
   - What deliverables can be expected?

3 Look Ahead
   - What will we do with the results?
SURVEY OVERVIEW
LINK TO OUR MISSION

Skill Development
• Leadership
• Communication
• Professional & Ethical Qualities
• Engineering Identity
• Technical Proficiency

Student Representation
• Taking stances on nationally relevant issues for students
• Working with other organizations pursuing similar goals

Information Sharing
• Promoting the free exchange of ideas
• Supporting the constant evolution of student environments across Canada
NEW FOCUS

“The CFES is working to gather a unified student voice for Canadian engineering students on issues that affect us all.”

Stance on Diversity (30 by 30)

Stance on Environmental Sustainability

Stances on Academic Issues

“Our goal with stances on accreditation is to become an active stakeholder that is well prepared, informed, and ready to contribute positively to the discussion.”

CFES 2017-2018
What is it?

A voluntary survey open to all undergraduate engineering students in Canada from mid-September to early October to gather information about their experiences with their programs.

Input and Support

- CREIQ Survey was used as basis for the CFES Survey
- CREIQ’s recommendations for future surveys were implemented
- VPA, Advocacy Working Group compiled questions for the survey
- Final draft reviewed by Public Policy Masters students, Psychology Professor, Research Ethics Board
General Parameters

- University
- Program of Study
- Year in Program
- Gender
- Age
- Int’l or Domestic Student

Structure

- 26 Questions spread across 4 categories (in addition to above 6)
- Mix of multiple choice, select all that apply, agreement scale
- 1 Open response question
Student Workload
Normal, reduced, increased course load?
Hours a week spent in class, on assignments, at a part-time job, extracurriculars, with family and friends?
Stress levels and mental health during the semester?

Teaching Quality
Availability of professors outside lectures, labs?
Experiential vs. Traditional learning methods?
NATIONAL SURVEY

Coop Issues
Ease of obtaining co-op positions?
Perceived issues with co-op program?

Language Electives
Availability of language courses?
51 Members, 46 Universities, >81,000 Engineering Students

- Emails sent directly to all member representatives (Presidents, VPXs)
- Ready to send email and social media posts included, translated
- In-person follow up with 38 of 51 representatives this past weekend
GOALS OF SURVEY

- Replicate CREIQ’s findings on student workload at the national scale
- Support our members in making informed decisions on stances
- Guide further research on student issues
- Contribute to current improvements in Engineering education with quantitative and objective data
CFES Members pass mandate, research begins
Jan ‘17

Survey results are compiled, reviewed, and analyzed by internal and external parties
Oct-Dec ‘17

Presentations to External Interest Groups?
Feb ‘18

Survey launched across country, open for 3 weeks; CFES VP Academic conducts frequent follow-ups with members
Sep ‘17

Data Report and Analysis Report are presented to members at CFES AGM (Congress)
Jan ‘18

CFES 2017-2018
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LOOK AHEAD
INTEREST GROUPS

Engineers Canada Board
Brief presentation of full results, analysis at Board Meeting

Accreditation Board
Presentation of results, analysis for workload at CEAB Meeting
Discussions on workload and collaboration with AU Task Group

NCDEAS
Presentation of full results, analysis; Future collaboration

Regional Student Associations
Further research and collaboration on other relevant issues
QUESTIONS?
PRESIDENT@CFES.CA