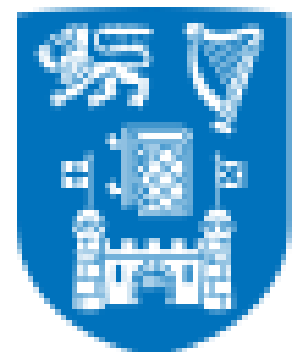


# Wellbeing I & Wellbeing-II

## STRESS COPING & RESILIENCE

Dr Joan Cahill  
Captain Paul Cullen  
Prof Keith Gaynor

Prof Simon Wilson – Sohaib Anwer



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PEOPLE  
PROCESS  
PERFORMANCE

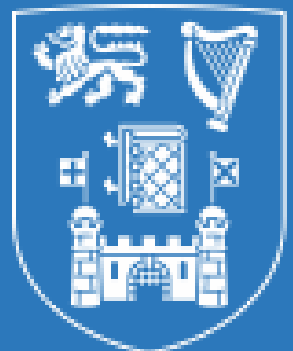
Centre for Innovative Human Systems





# Lived Experience Wellbeing Project

BIOLOGICAL - PSYCHOLOGICAL - SOCIAL



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PERFORMANCE

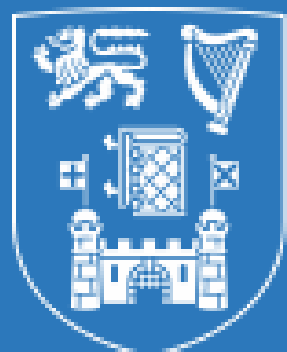
# Introduction

1. Big picture/opening remarks
2. About Project
3. Lived Experience & WRS
4. Mental health (Self reported, PHQ, GAD, )
5. Problem Space, Stakeholders & Aviation Org Supports/Culture
6. Peer Support
7. Stress Coping (individual level)
8. COVID Situation & Need for Resilience
9. Research Roadmap & Next steps
10. Conclusions
11. Resources & Supports
12. Acknowledgements
13. Questions



## Lived Experience Wellbeing Project

BIOLOGICAL - PSYCHOLOGICAL - SOCIAL



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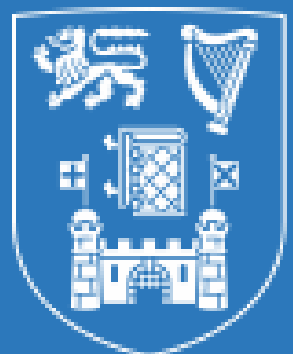
PEOPLE  
PROCESS  
PERFORMANCE



# Lived Experience Wellbeing Project

BIOLOGICAL - PSYCHOLOGICAL - SOCIAL

- **Understanding lived experience & behavior.**
- **Understanding & measuring impact** of Work-Related Stress (WRS) on wellbeing, performance and safety.
- **Resilience:** Why do some workers cope better than others?
- **Change:** Solutions for aviation workers and industry.



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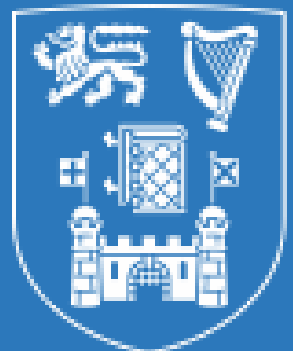
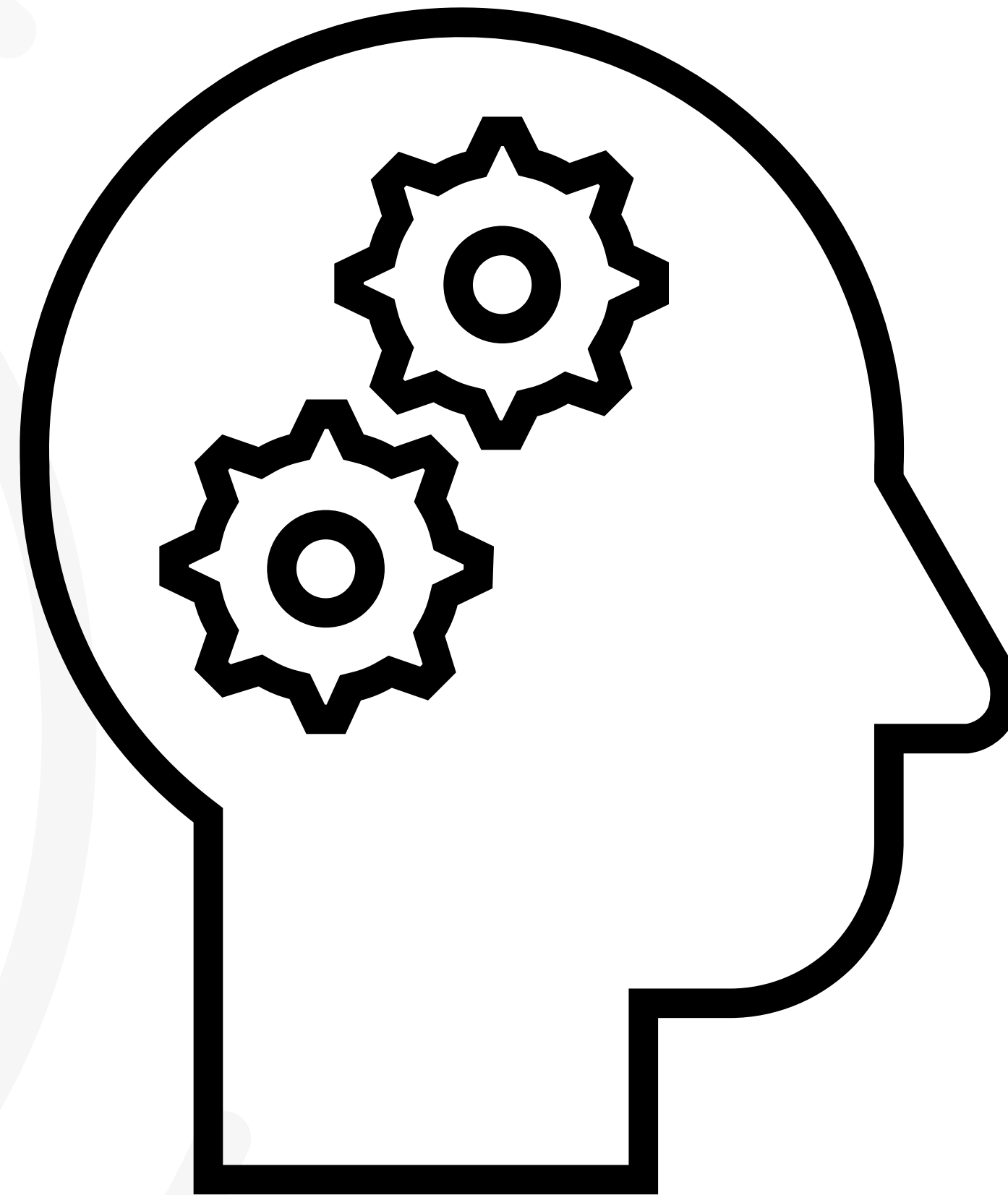
<https://www.tcd.ie/cihs/projects/pilot-lived.php>



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PROCESS  
PERFORMANCE



# Should Mental Health be feared or embraced?



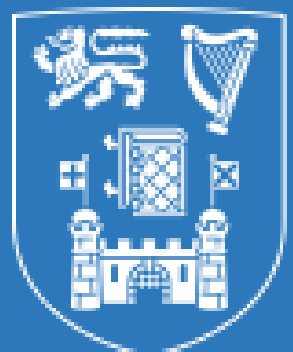
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# What Mental Health used to be defined as:



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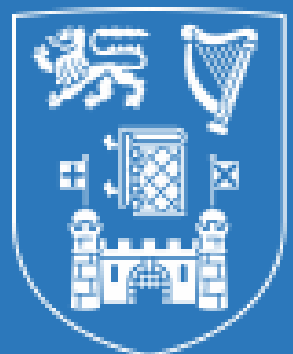


# What Mental Health used to be defined as (and still is in some circles):



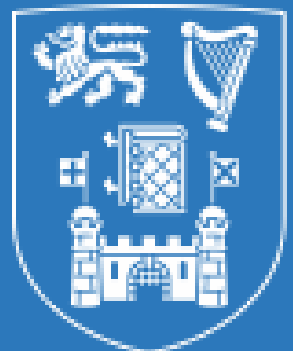
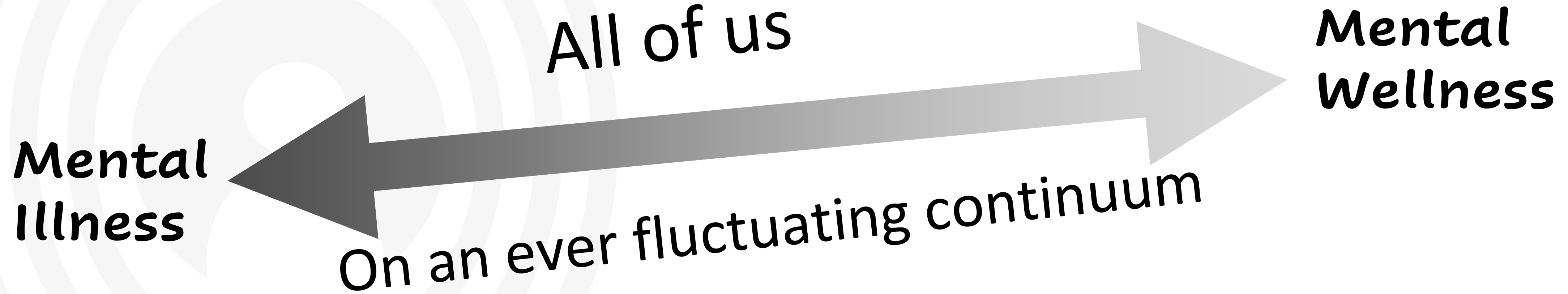
Them

Us

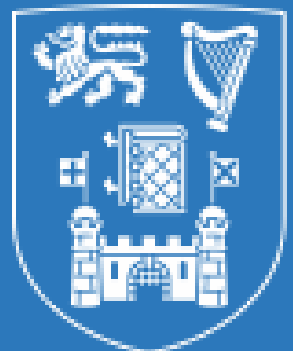




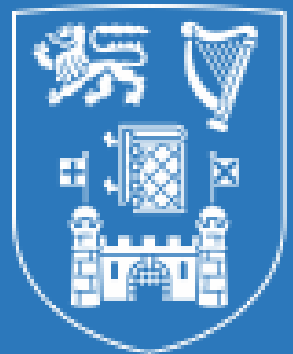
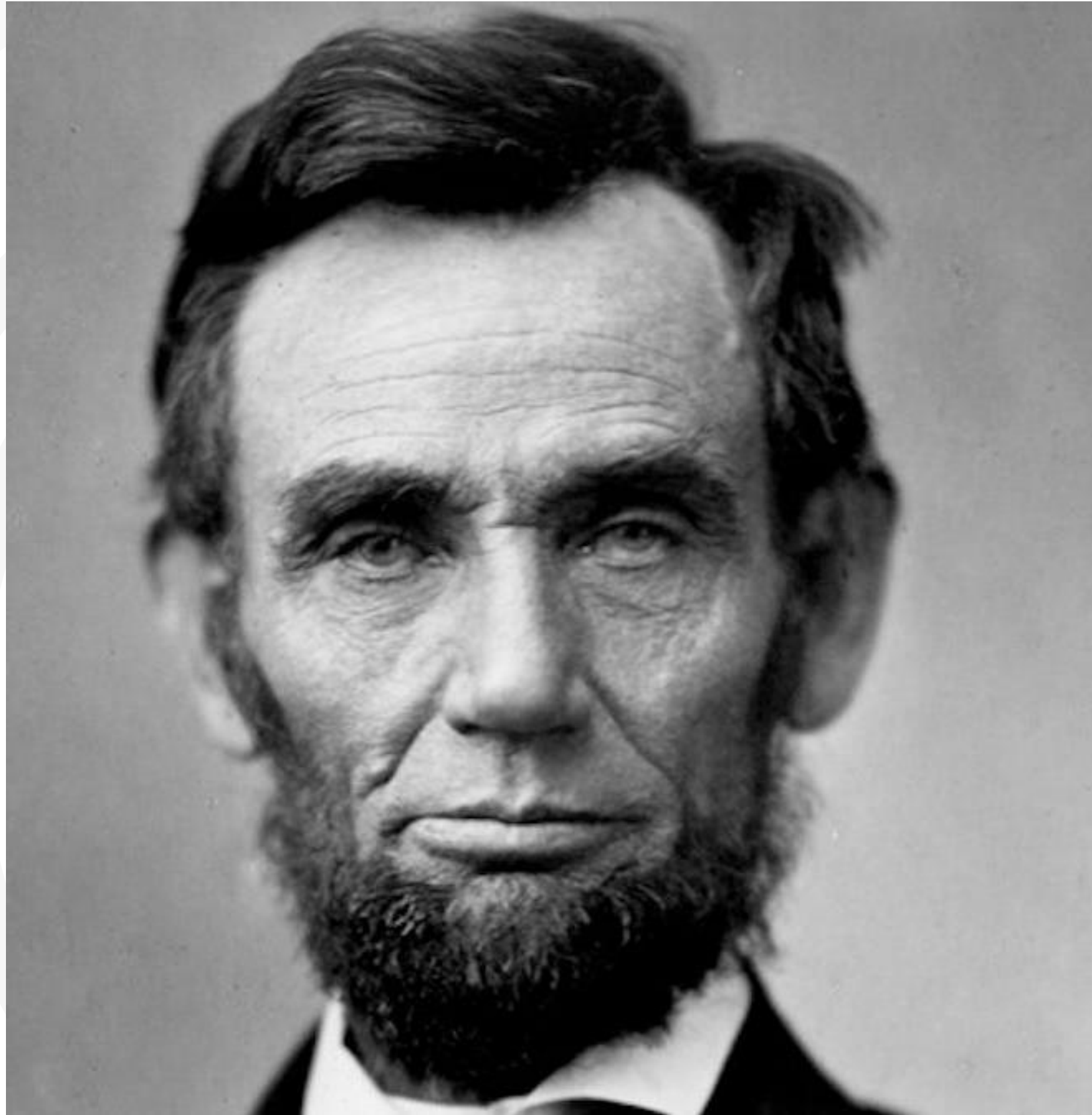
# What Mental Health actually is:



# What Mental Health actually is:



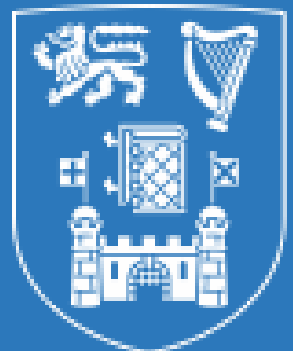
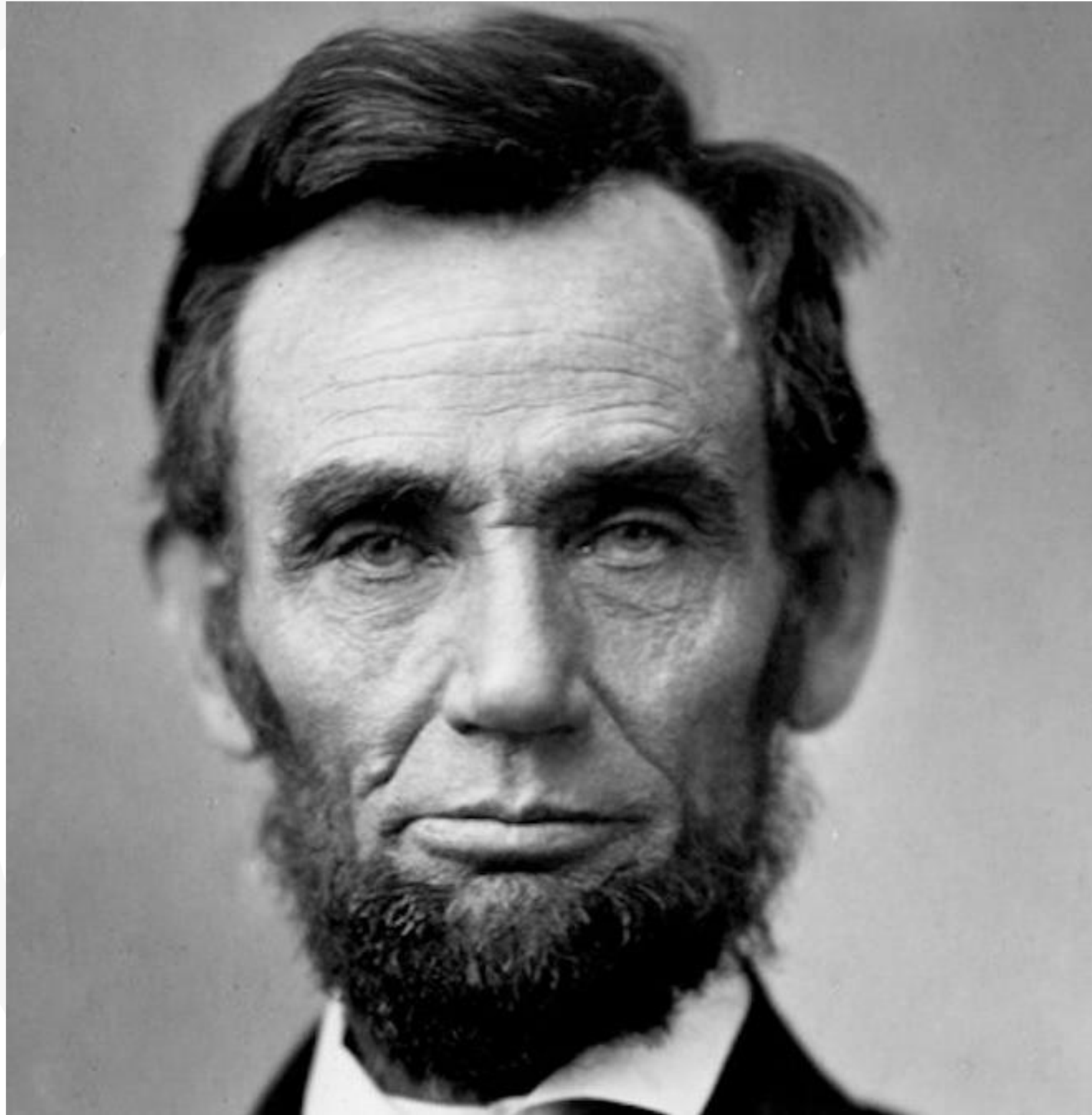




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PROCESS  
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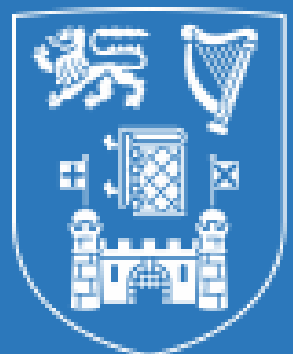
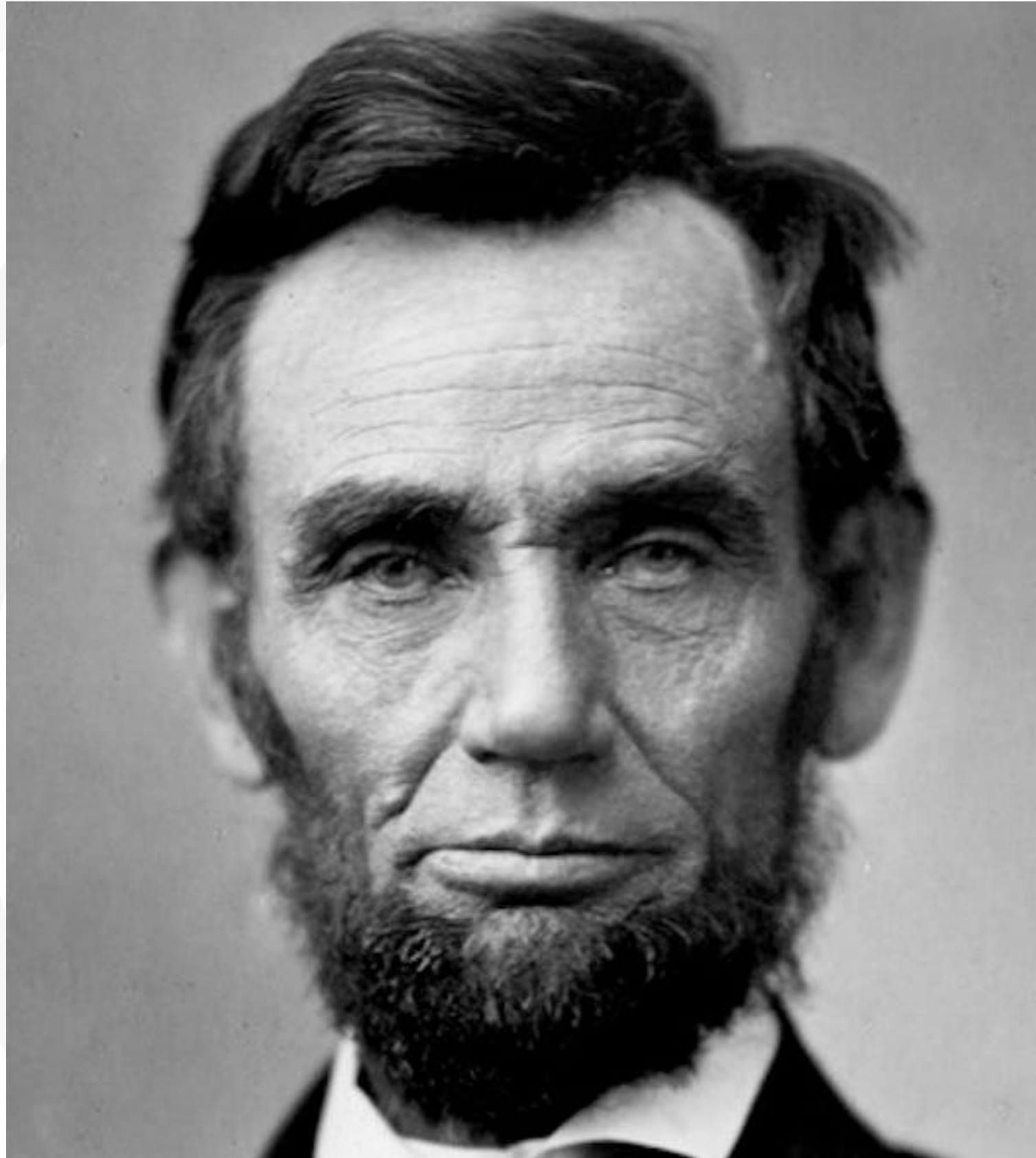


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PEOPLE  
PROCESS  
PERFORMANCE



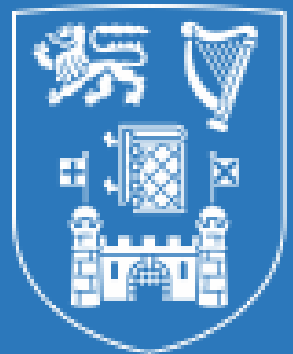


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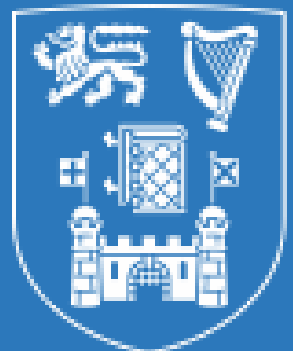


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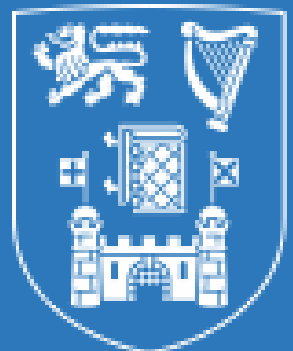


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PEOPLE  
PROCESS  
PERFORMANCE



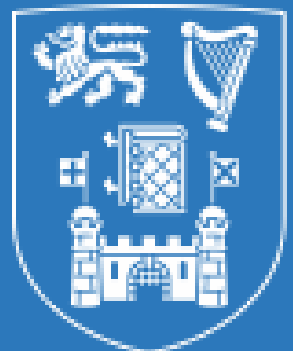


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PEOPLE  
PROCESS  
PERFORMANCE





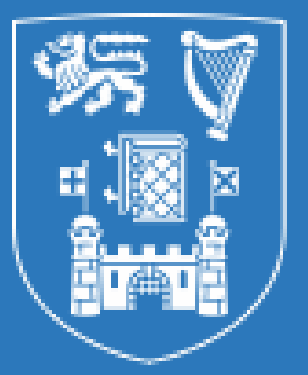
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PEOPLE  
PROCESS  
PERFORMANCE



# THE RIGHT STUFF



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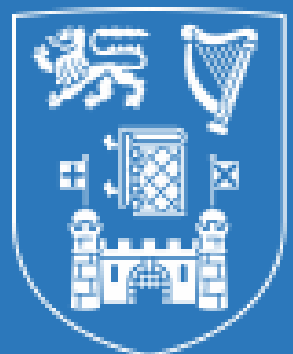
PEOPLE  
PROCESS  
PERFORMANCE





**Them**

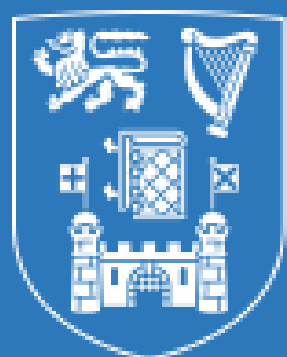
**Us**



Mental  
Illness

Them

Us

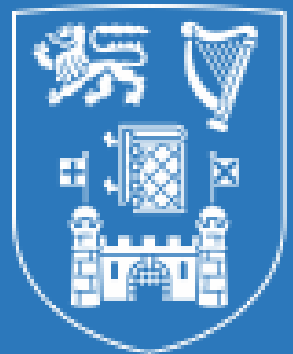


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PEOPLE  
PROCESS  
PERFORMANCE



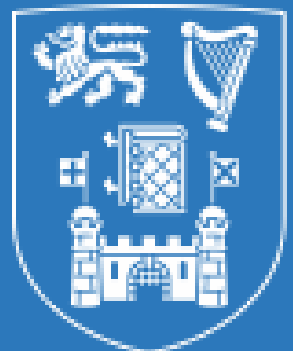


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PEOPLE  
PROCESS  
PERFORMANCE



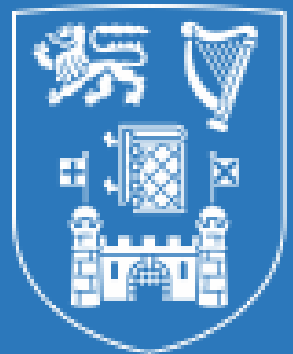


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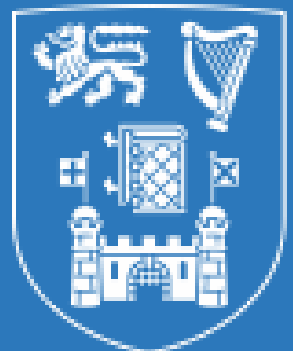


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PROCESS  
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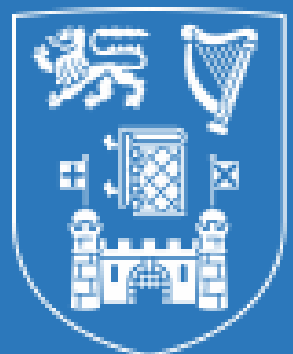
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PEOPLE  
PROCESS  
PERFORMANCE



# THE RIGHT STUFF

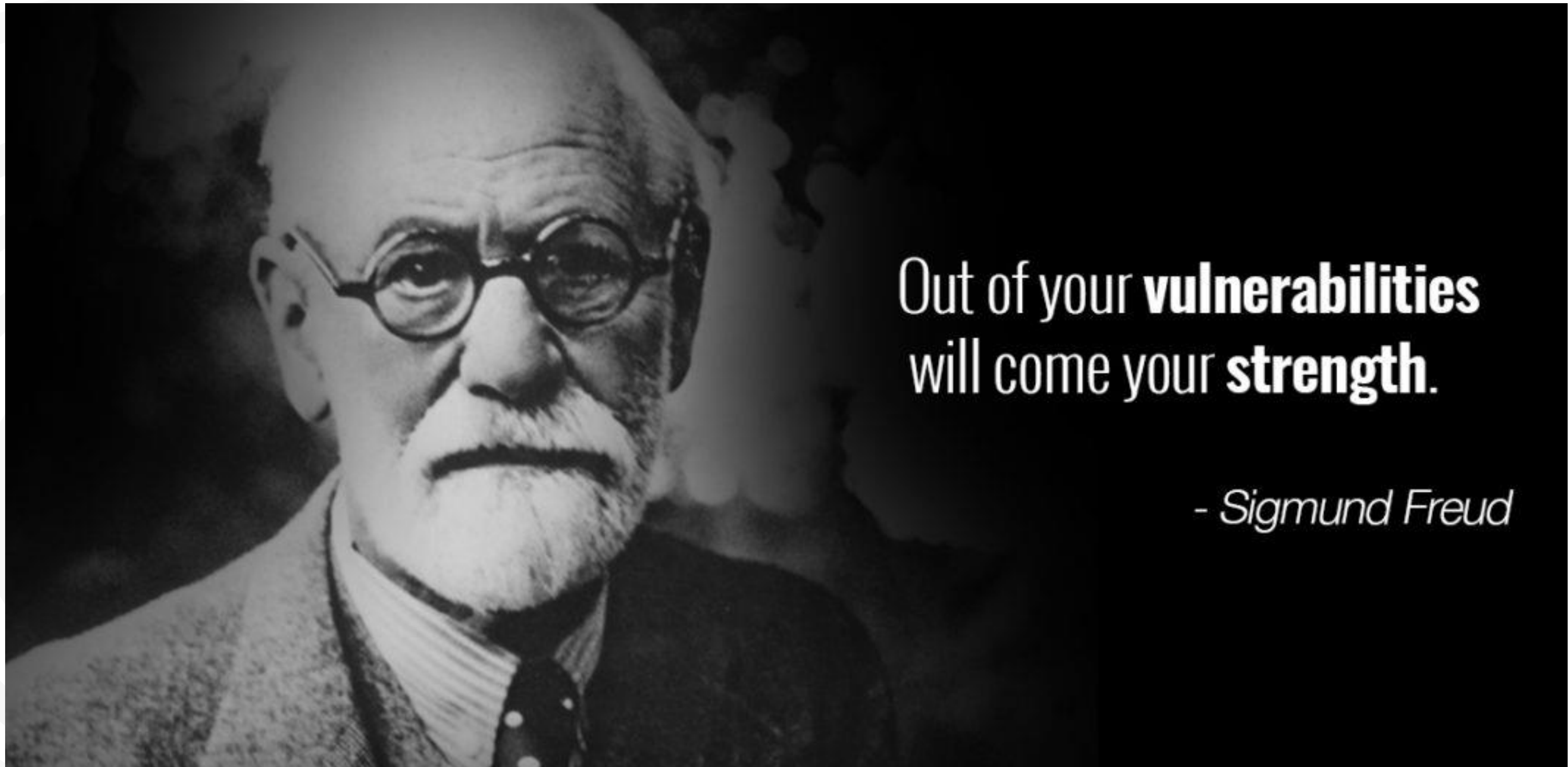


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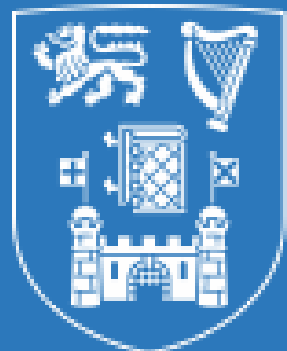
PEOPLE  
PROCESS  
PERFORMANCE





Out of your **vulnerabilities**  
will come your **strength**.

- *Sigmund Freud*



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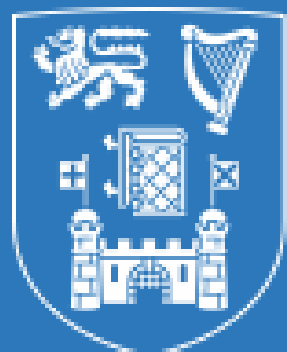
PEOPLE  
PROCESS  
PERFORMANCE



# Research Overview

#	When	Group	Method/What
<b>1</b>	<b>2015 to 2016</b>	<b>Pilots (N= 103)</b>	<b>Informal Interviews</b>
2	2018	Pilots (N=33)	Workshops
3	2018/2019	Pilots (N= 1,059)	Wellbeing Survey
4	2019/2020	Aviation stakeholders (N=15)	Workshops/Interviews
5	August 2020	All aviation workers (N=2050)	COVID Survey

**Susceptibility vs Resilience**  
**Wellbeing I vs Wellbeing II**



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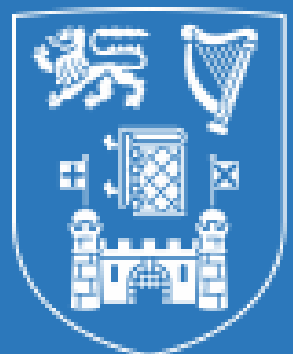
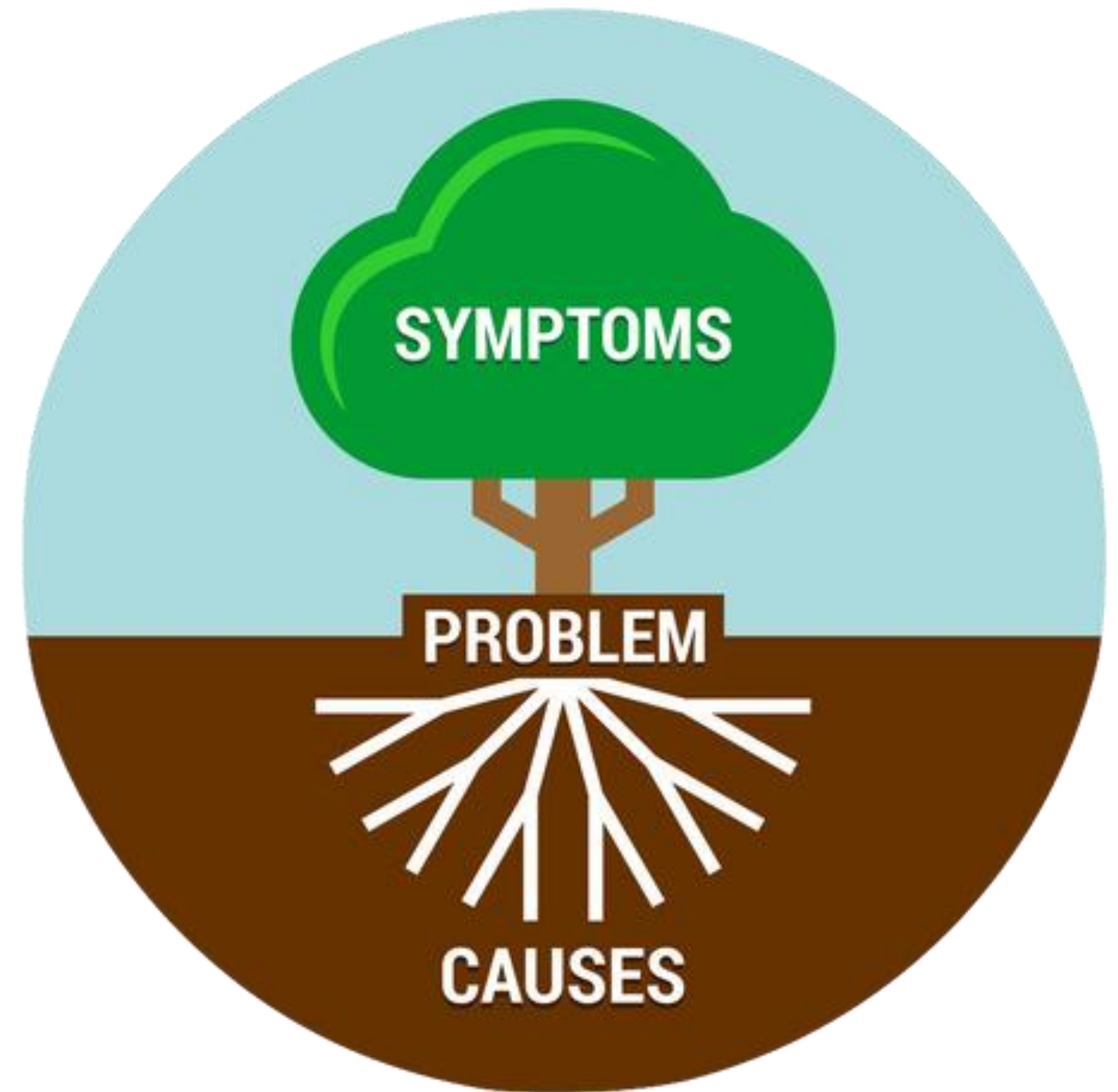


PEOPLE  
PROCESS  
PERFORMANCE



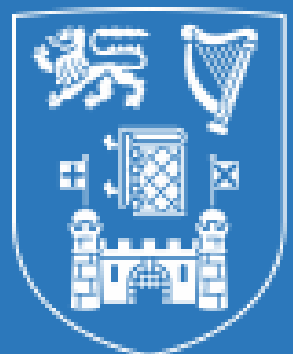
# Preliminary Field Research

- 2015
- Informal Interviews
- n=103
- No agenda, just curiosity...
- “Why were some pilots suffering?”





# 3 Pillars of Health





**Pilot Wellbeing**  
**The Lived Experience**

Source of Work Related Stress (WRS)

Symptom of WRS

Biological Health Outcome

Source of WRS

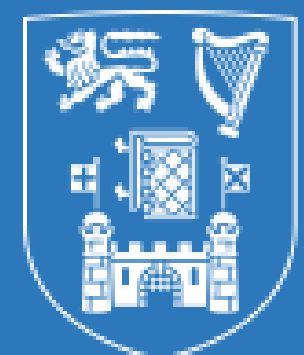
Symptom of WRS

Psychological Health Outcome

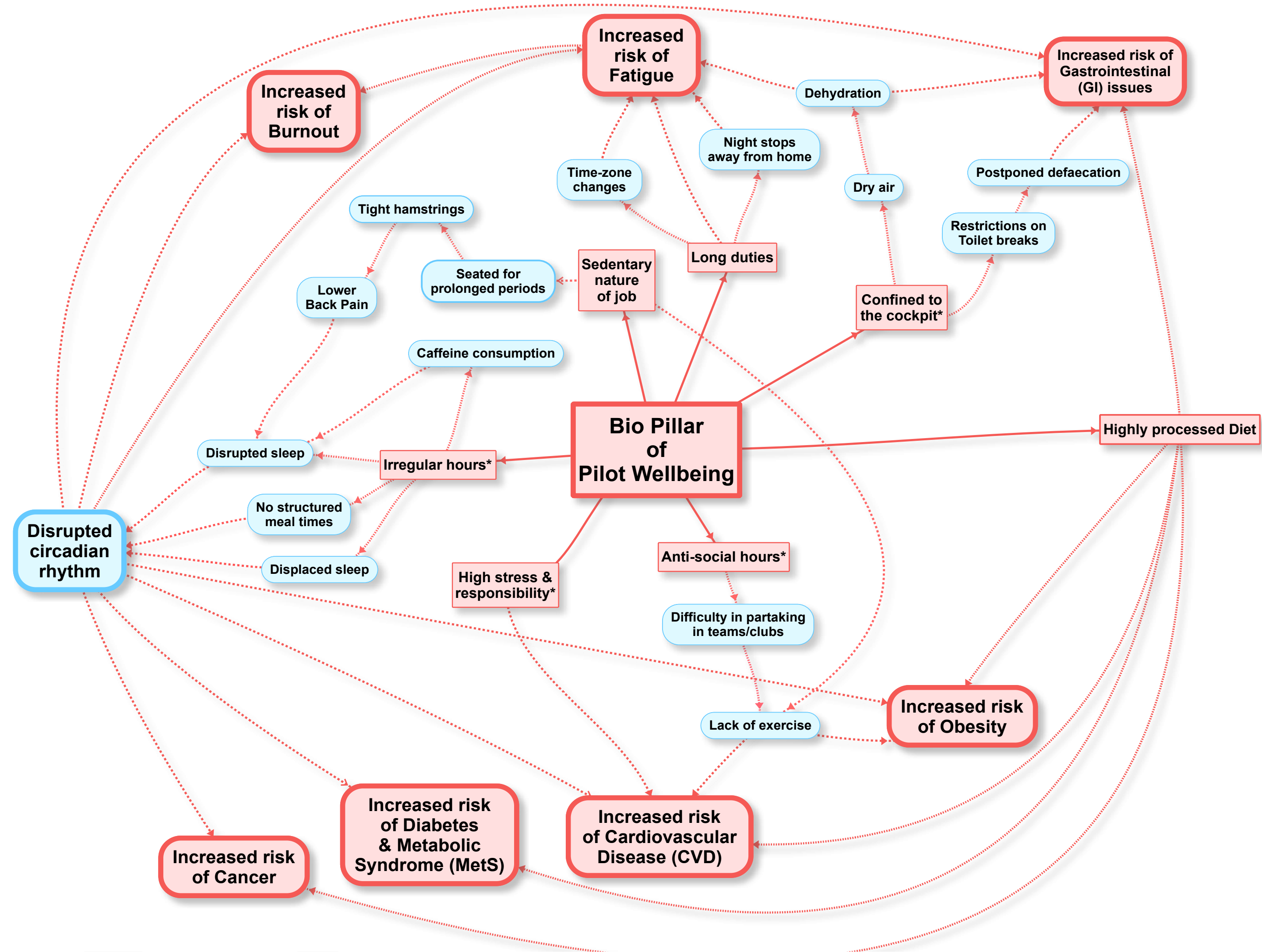
Source of WRS

Symptom of WRS

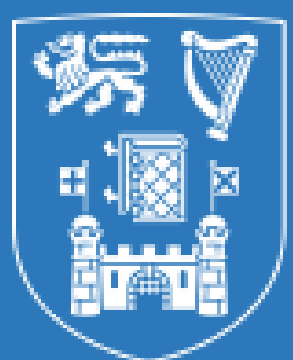
Social Health Outcome







**2015-2016**  
**n=103**

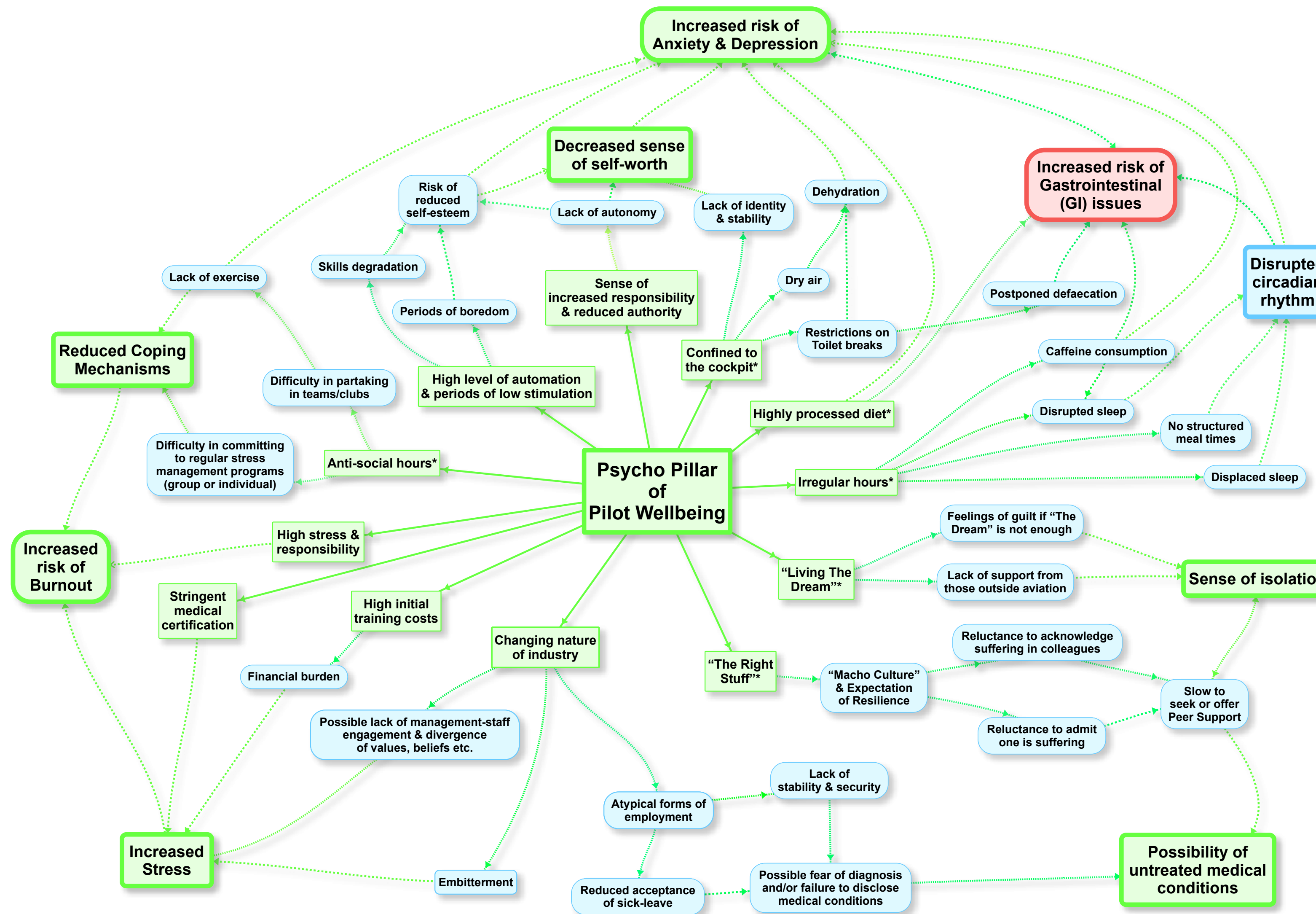


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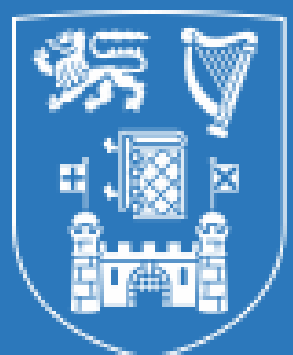


PEOPLE  
PROCESS  
PERFORMANCE





2015-2016  
n=103

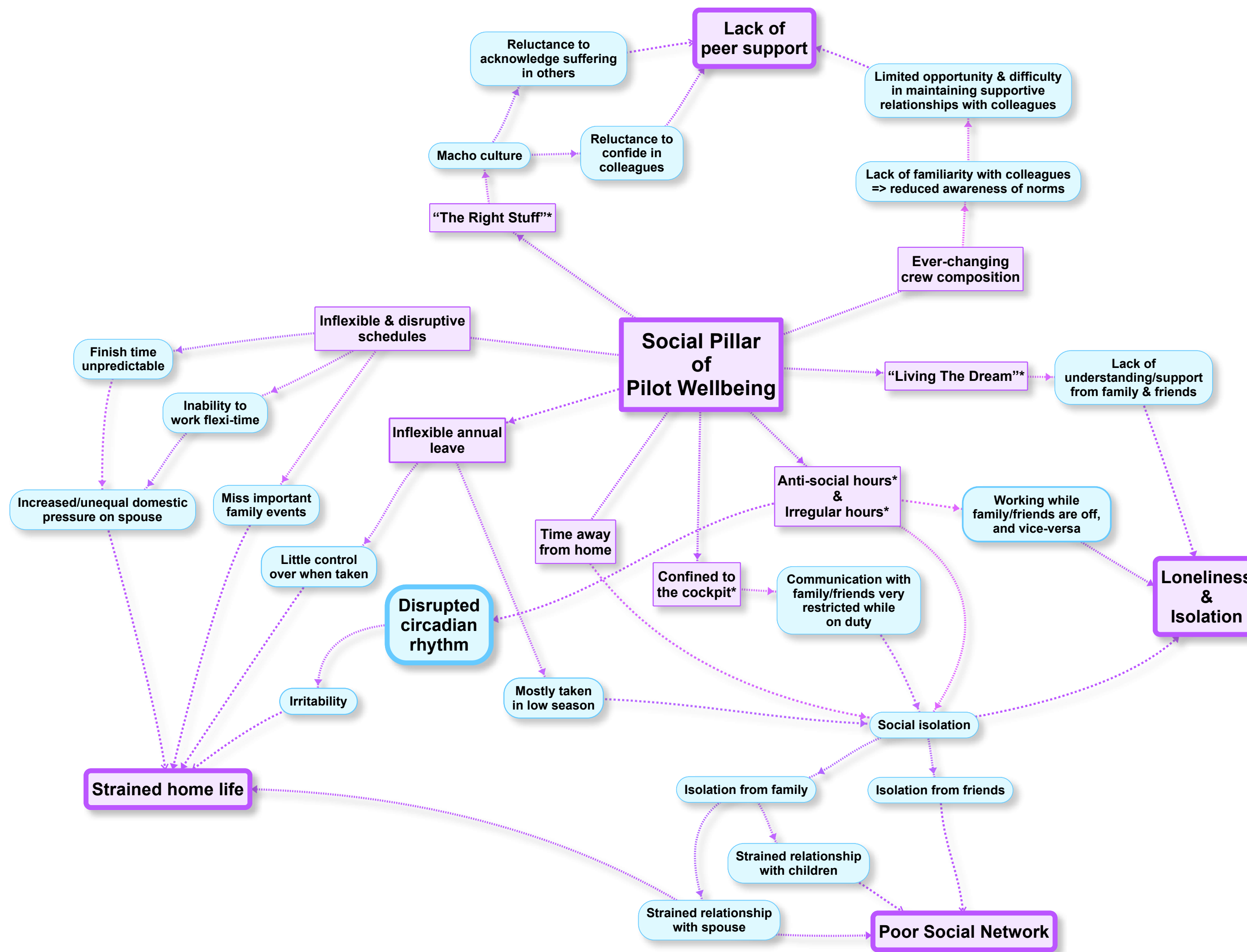


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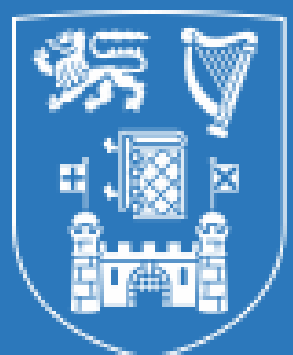


PEOPLE  
PROCESS  
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2015-2016  
n=103



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PROCESS  
PERFORMANCE

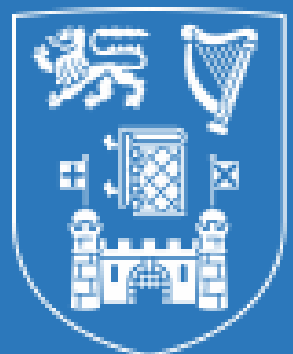
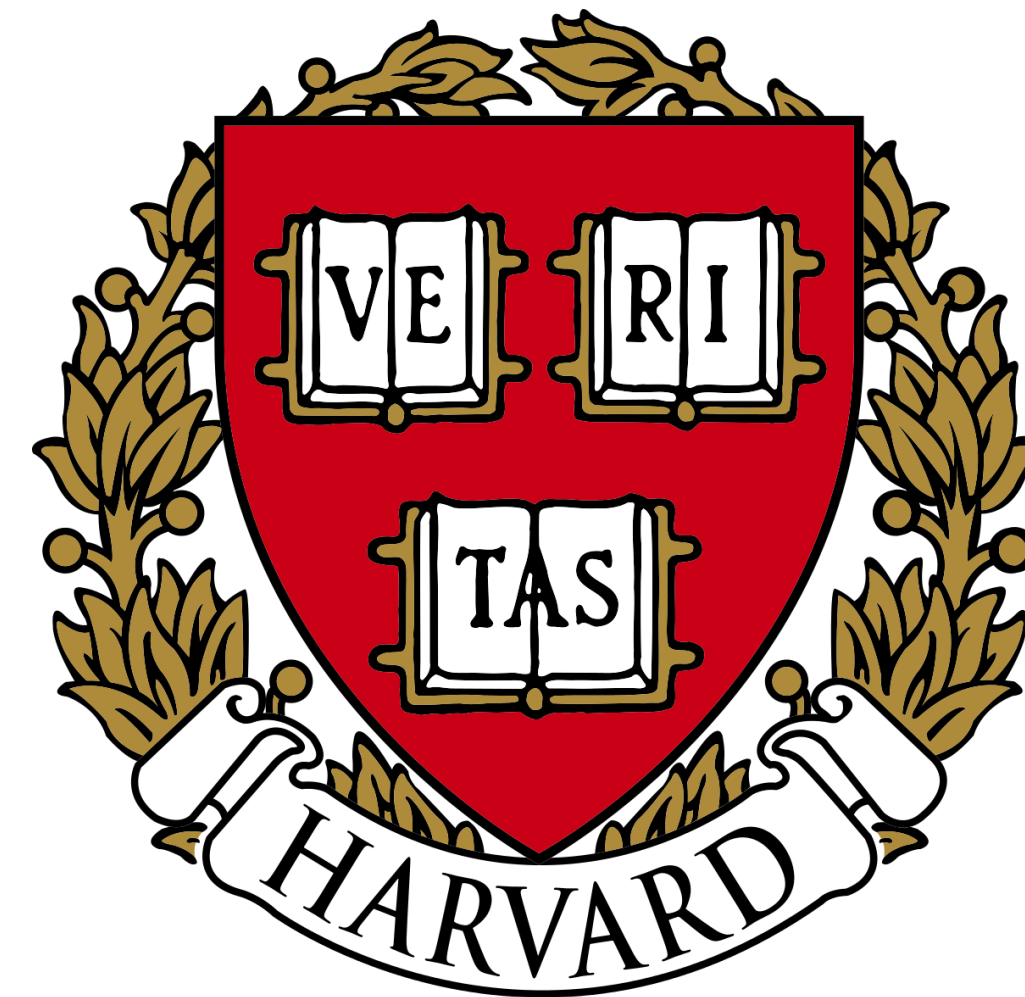






# Germanwings

March 2015



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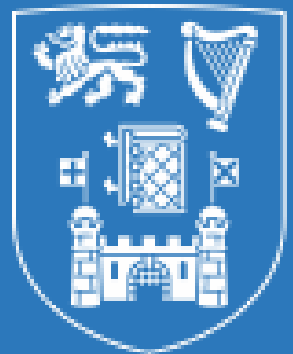
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PROCESS  
PERFORMANCE





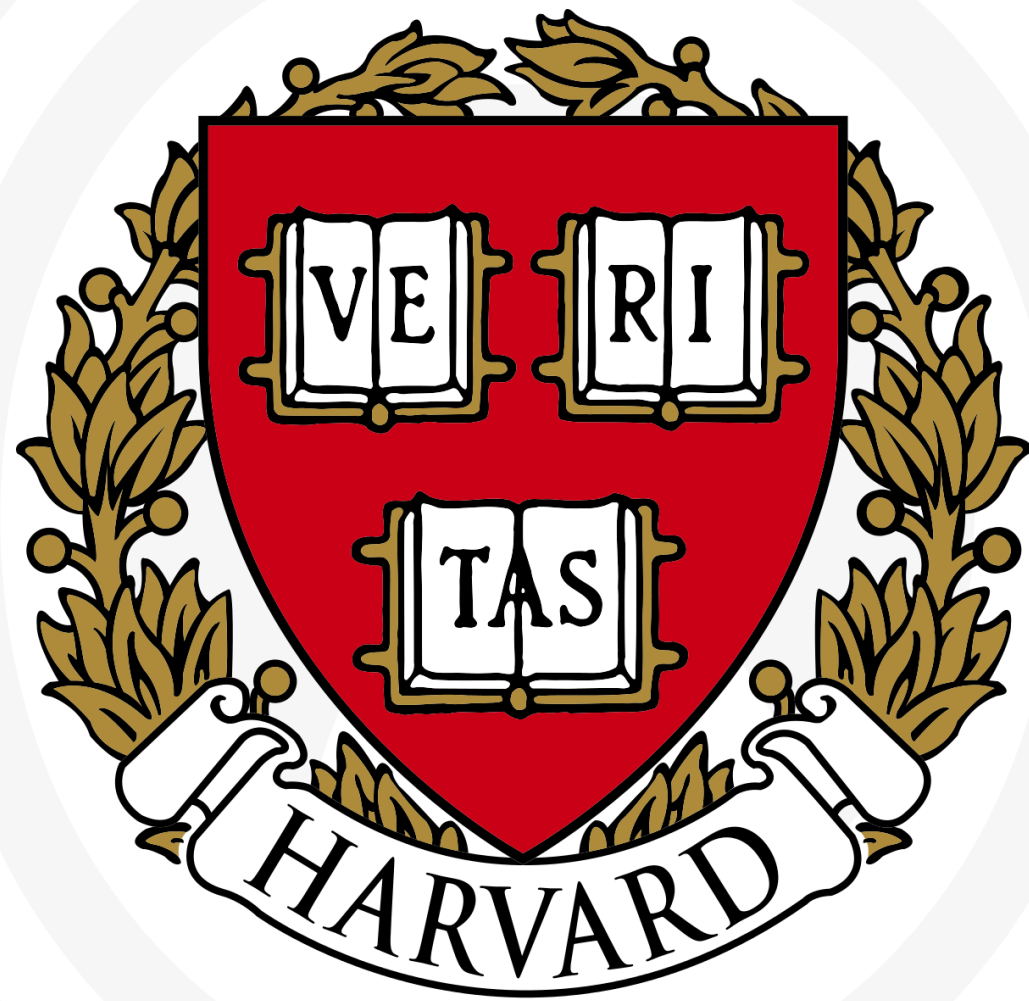
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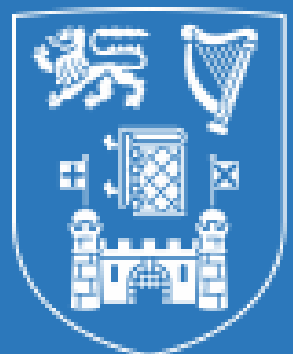
PEOPLE  
PROCESS  
PERFORMANCE



# Harvard Study (2016)



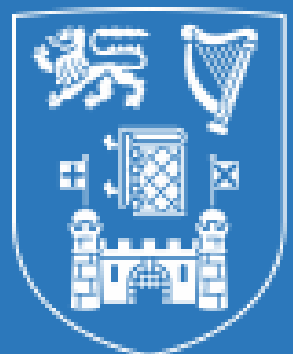
- **Clinical Depression / Major Depressive Disorder (MDD) symptoms within last 2 weeks (n=1848)**
- **12.6%**
- **Having Suicidal Thoughts within last 2 weeks (n=1848)**
- **4.1%**





# Risk Management

## Predictive & Reactive



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>

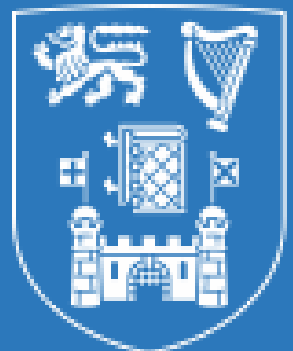


PEOPLE  
PROCESS  
PERFORMANCE



# Hazard Identification

“Say ... what’s a  
mountain goat  
doing way up here  
in a cloud bank?”



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



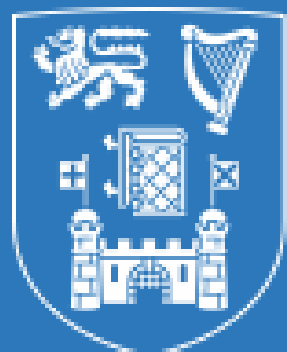
PEOPLE  
PROCESS  
PERFORMANCE



# Research Overview

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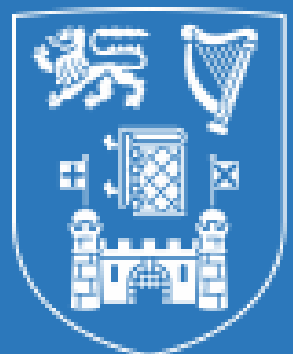
**Susceptibility vs Resilience**  
**Wellbeing I vs Wellbeing II**





# Biological

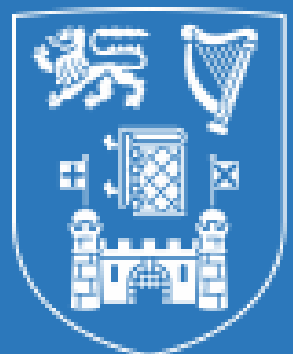
- *“...different environment from the 90’s... health issues emerging now, not seen as often in the past, or not at all... young captains needing back surgery...”*
- *“I’m a night owl, and when on early duties, stay awake early in the morning using coffee. Still can’t get to sleep until late, and end up only getting about 4 hours sleep...”*
- *“...not simply sedentary, but effectively impaled into the seat... need to get permission to use the bathroom”*





# Biological

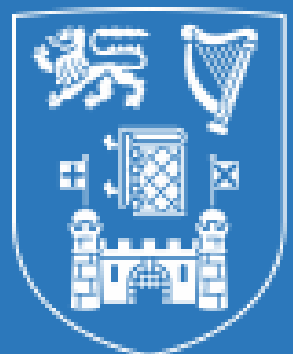
- *“...restricted movement due to locked cockpit door... can’t rotate in the chair... can’t stretch out or stand up straight... muscle cramps and stiffness”*
- *“I never had IBS until I started work as a pilot...”*
- *“...lack of breaks, including bathroom breaks. Postponed defecation is a big stress”*





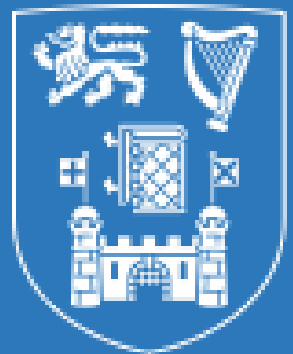
# Psychological

- “...feel dehumanised by management, referred to as a ‘fulltime equivalent’...just a staff number... feel objectified...”
- “ “Get to ops, go to aircraft, get things moving, 30-minute turn-around, do it all over again. Don’t get 5 minutes to myself...”
- “I’m not proud of my company...”



# Psychological

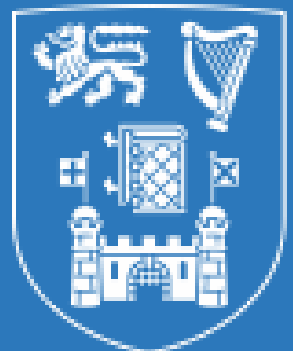
- “Battle with management a constant source of stress and anxiety... they are bonus chasers and don't experience the impact of their decisions... they're not on the same team as the pilots”
- “The vagueness of some rules is a source of stress...”
- “We're always understaffed...”





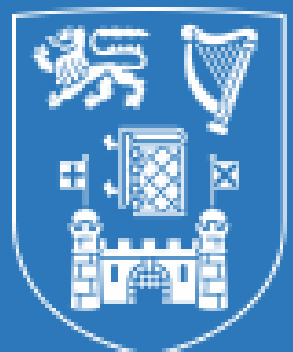
# Social

- “...come home and your body clock is out of sync with the rest of the family”
- “...fixed -pattern roster has benefits, predictability, but can be very inflexible... missing major family and social events...”
- “We’re 5 miles up, hanging onto a pair of wings. It’s unnatural but we’ve normalised this... can’t just step out for a minute...”



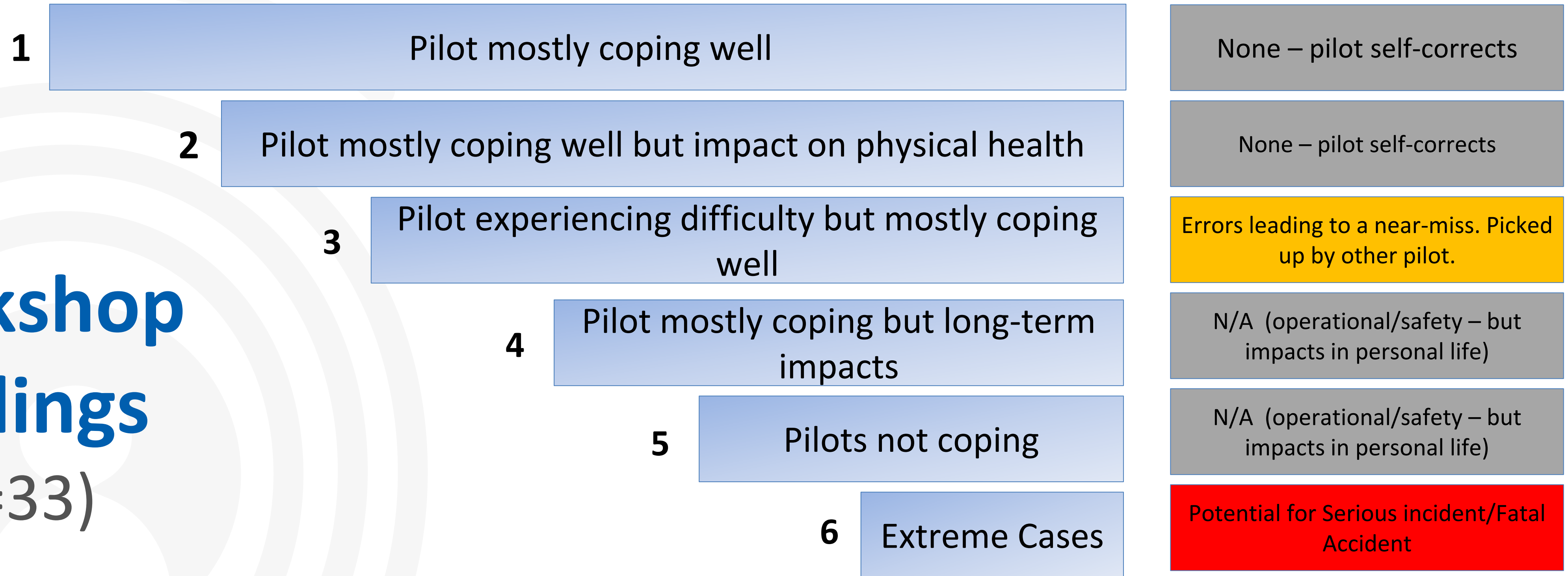
# Social

- “...dragging your life behind you in a suitcase”
- “We’re not special or unique, but our job is unique...”
- “As a foreigner, it’s hard to make new friends, in a new country... cultural differences... hard to fit in”
- “...fixed -pattern roster has benefits, predictability, but can be very inflexible... missing major family and social events...”





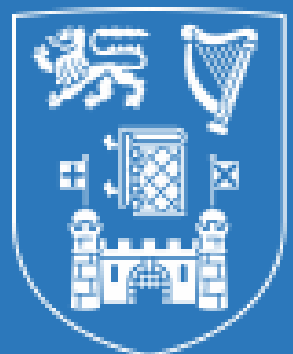
# Workshop Findings (n=33)



Safety Impact

Impact Scenarios Identified by Pilots

(Cahill, Cullen & Gaynor, 2018)



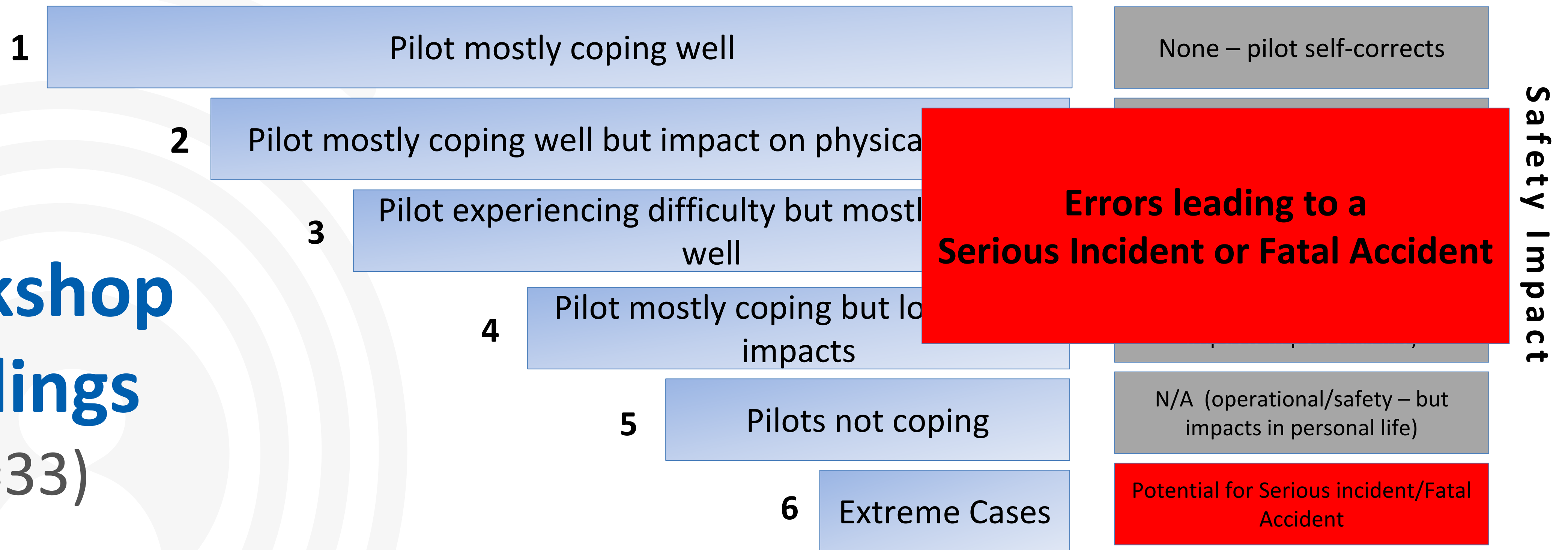
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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



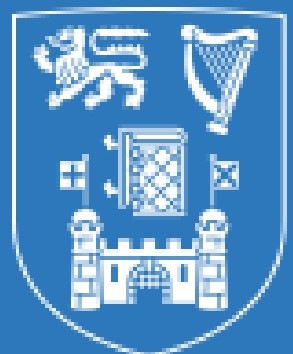
PEOPLE  
PROCESS  
PERFORMANCE

# Workshop Findings (n=33)



Impact Scenarios Identified by Pilots

(Cahill, Cullen & Gaynor, 2018)



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



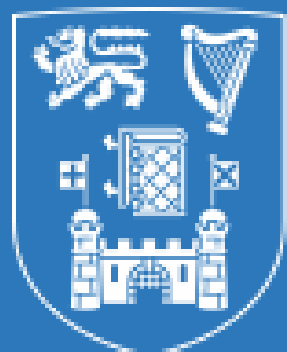
PEOPLE  
PROCESS  
PERFORMANCE



# Research Overview

#	When	Group	Method/What
1	2015 to 2016	Pilots (N= 103)	Informal Interviews
2	2018	Pilots (N=33)	Workshops
<b>3</b>	<b>2018/2019</b>	<b>Pilots (N= 1,059)</b>	<b>Wellbeing Survey</b>
4	2019/2020	Aviation stakeholders (N=15)	Workshops/Interviews
5	August 2020	All aviation workers (N=2050)	COVID Survey

**Susceptibility vs Resilience**  
**Wellbeing I vs Wellbeing II**

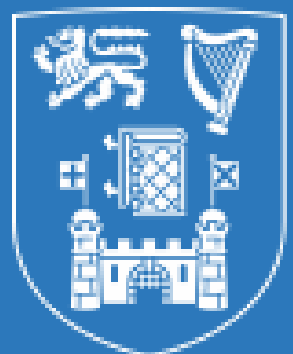


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PROCESS  
PERFORMANCE

# Lived Experience of a Pilot survey (n=1,059)



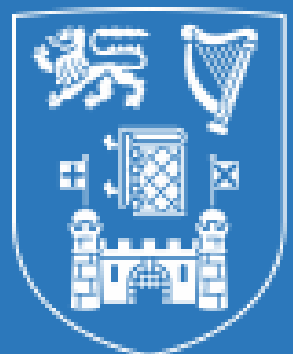
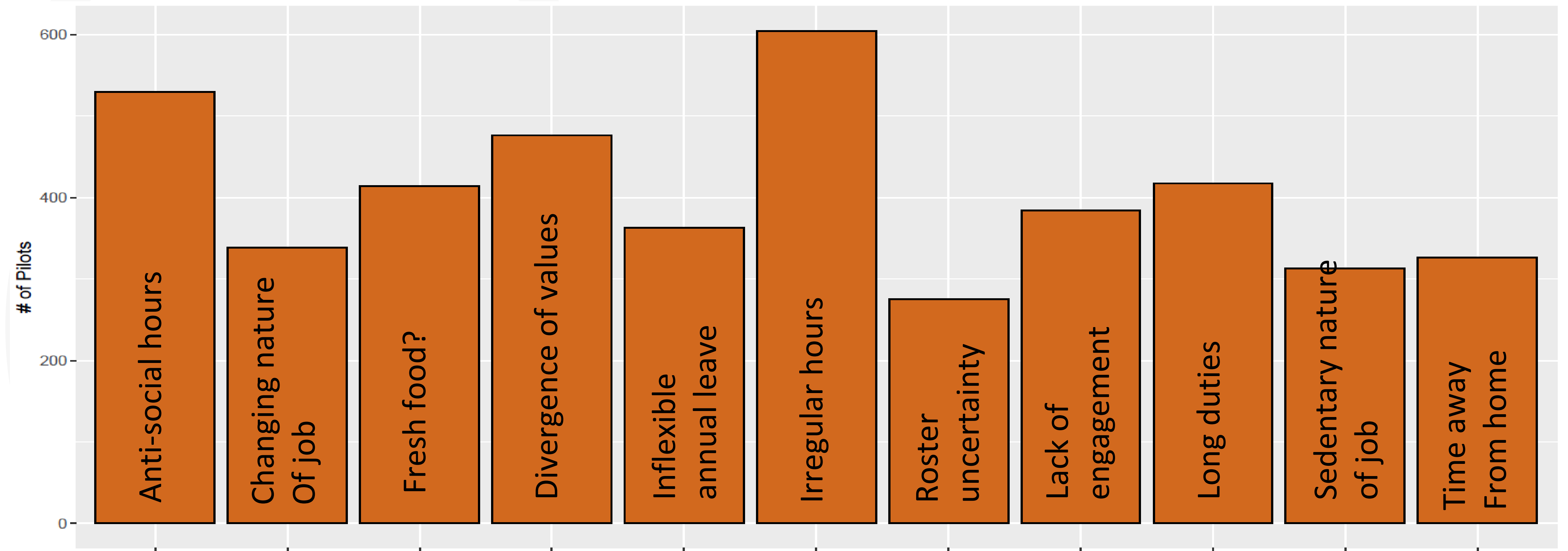
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PROCESS  
PERFORMANCE



# Sources of Work Related Stress (2018/2019 – Pre COVID)



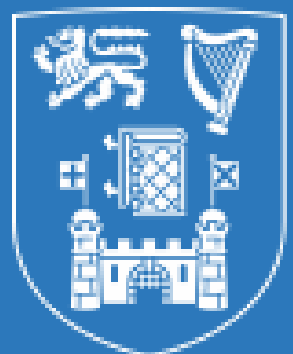
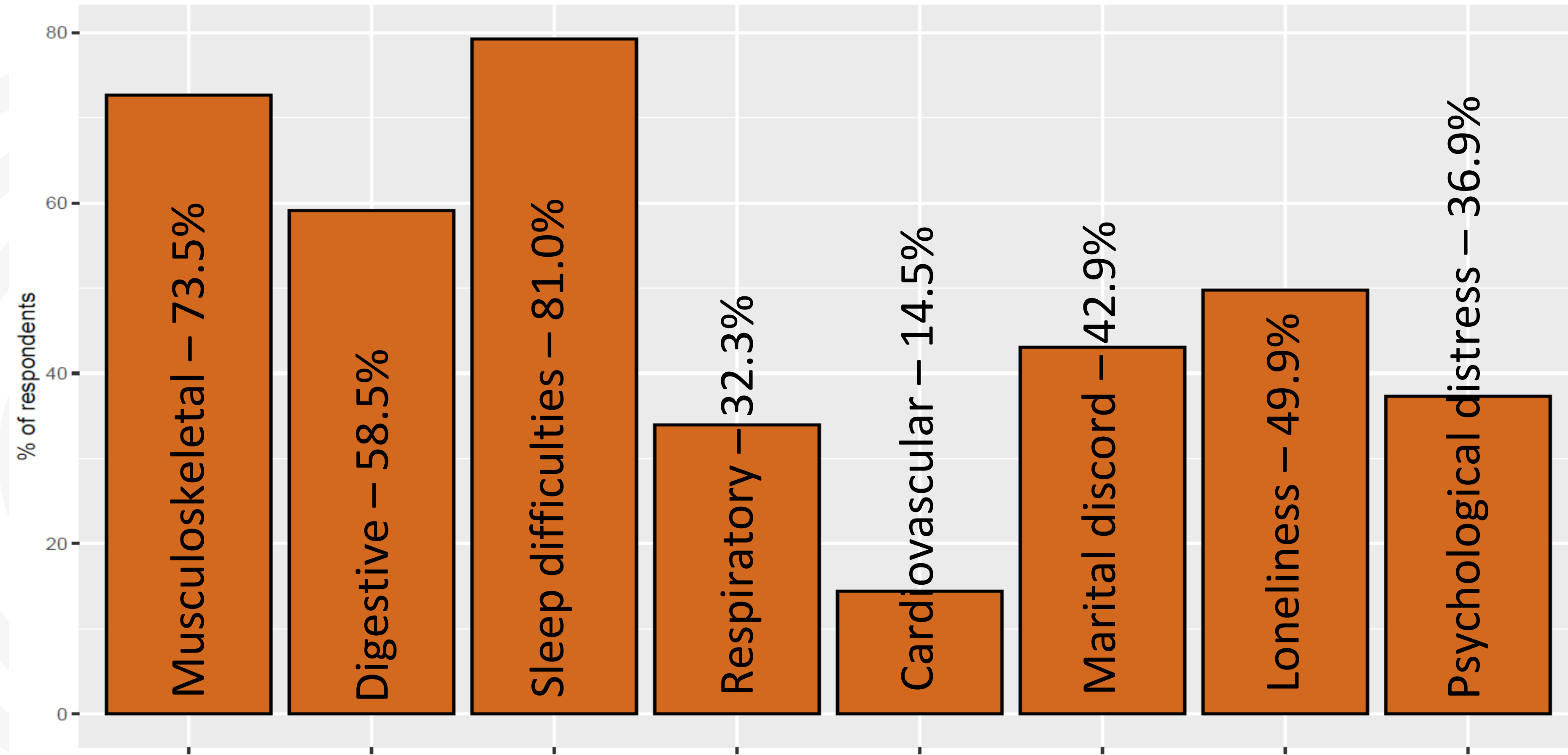
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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



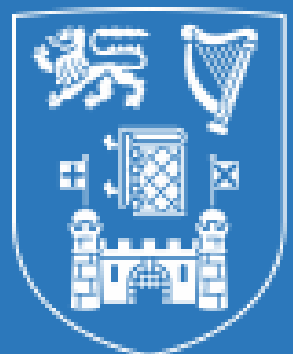
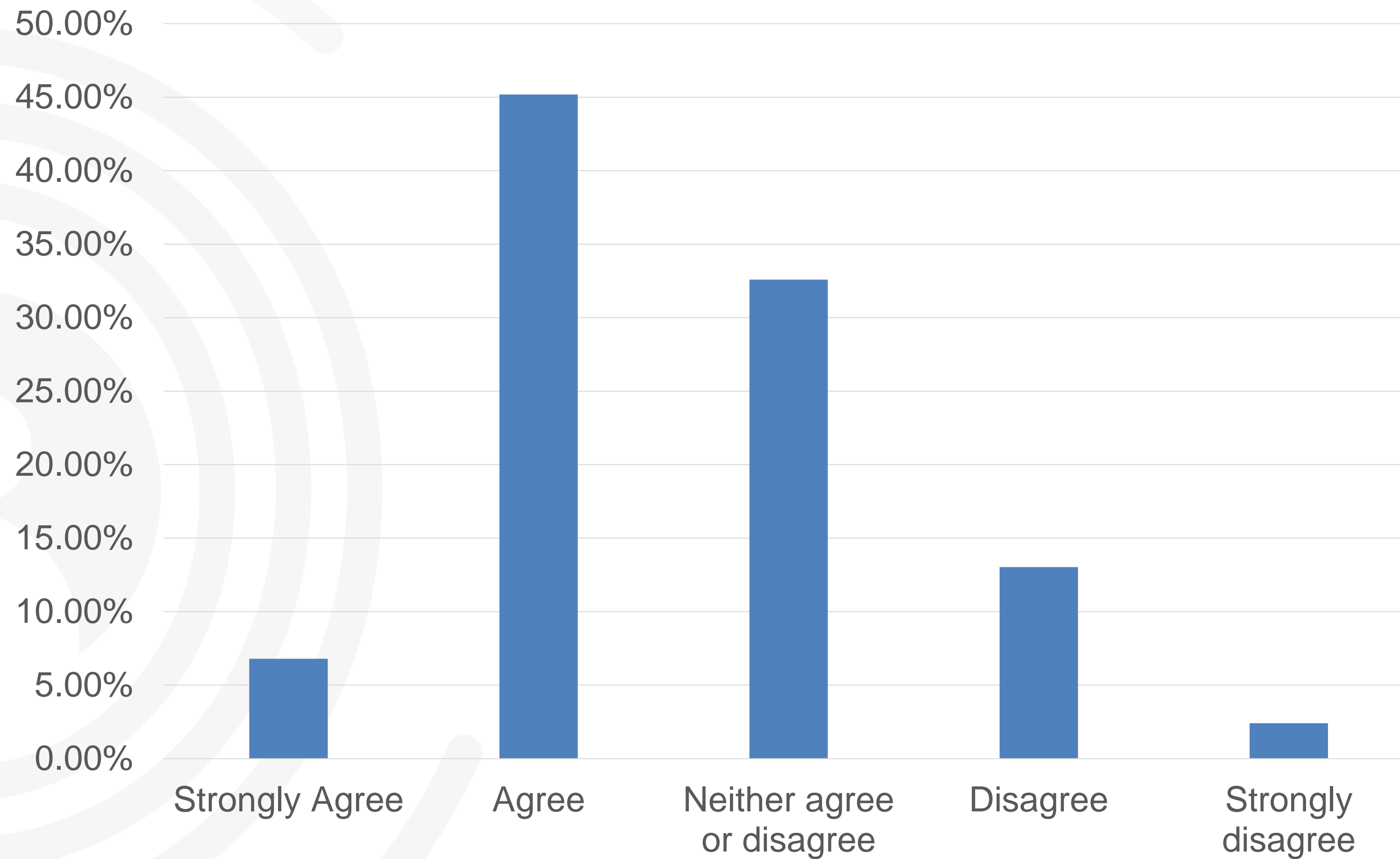
PEOPLE  
PROCESS  
PERFORMANCE

# Wellbeing Issues suffered due to job (2018/2019 – Pre COVID)





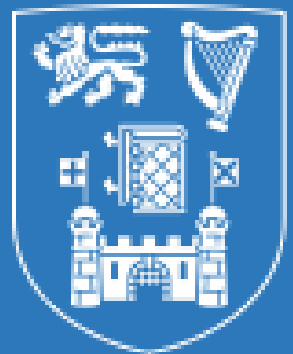
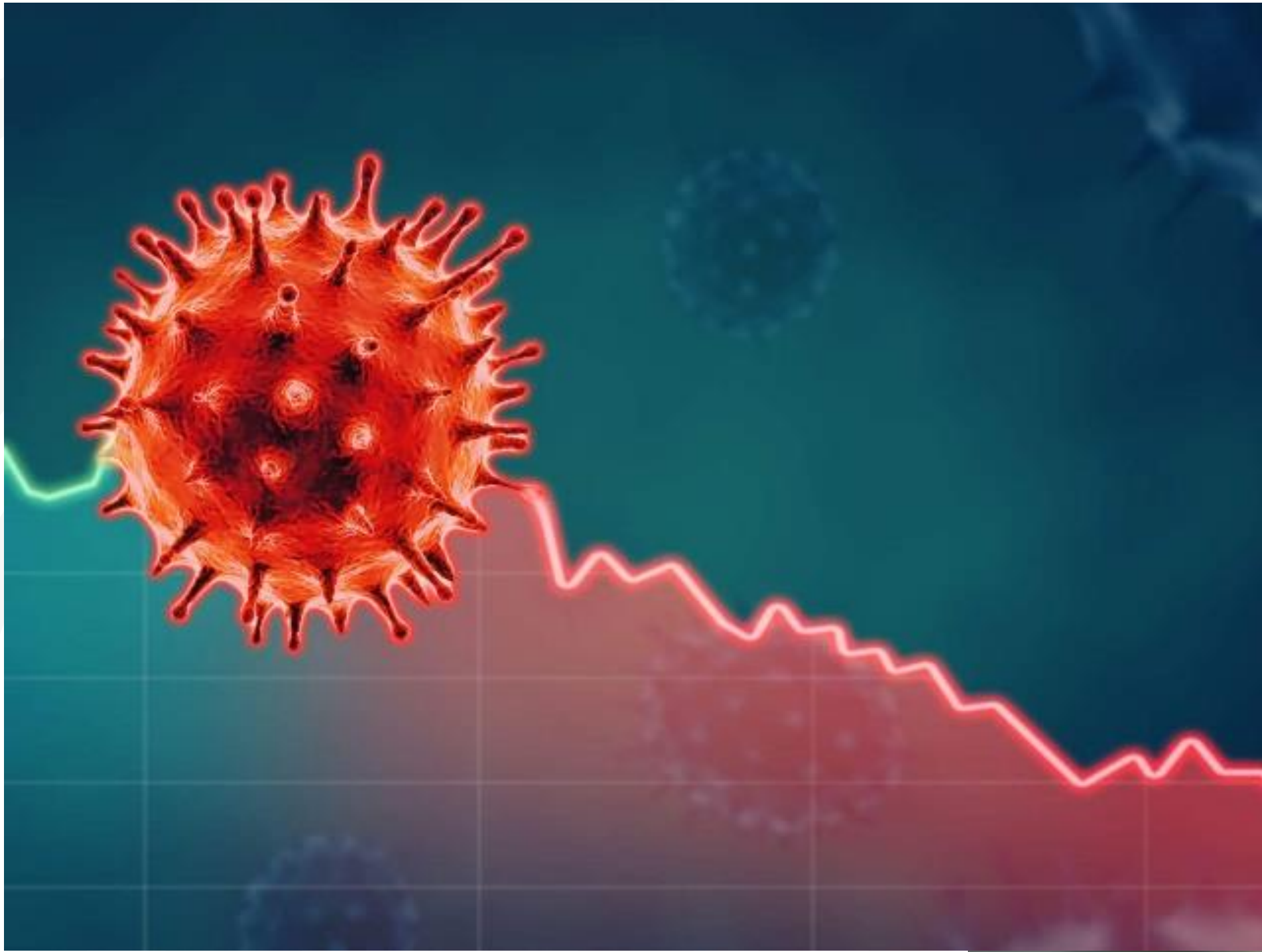
## Pilots are suffering, but they are also adapting and coping (2018/2019 Survey)



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PEOPLE  
PROCESS  
PERFORMANCE



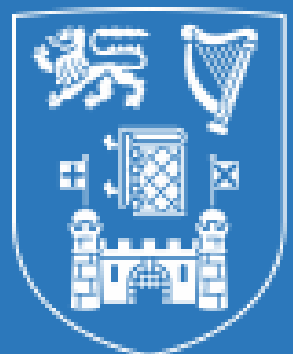
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PROCESS  
PERFORMANCE



# How to Fly Straight & Level in Turbulent Times



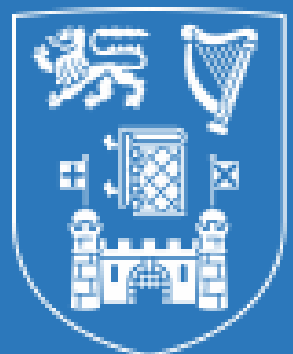
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PROCESS  
PERFORMANCE

# How to Fly Straight & Level in Turbulent Times



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



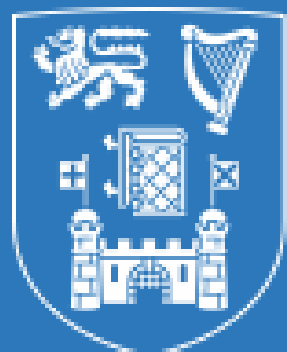
PEOPLE  
PROCESS  
PERFORMANCE



# Research Overview

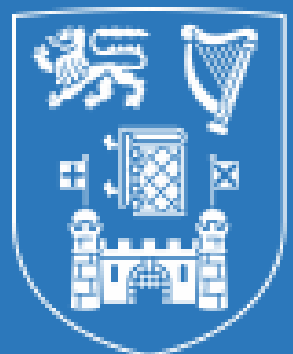
#	When	Group	Method/What
1	2016 to 2018	Pilots (N= 103)	Interviews
2	2018	Pilots (N=33)	Workshops
3	2018/2019	Pilots (N= 1,059)	Wellbeing Survey
4	2019/2020	Aviation stakeholders (N=15)	Workshops/interviews
<b>5</b>	<b>2020</b>	<b>All aviation workers (N=2050)</b>	<b>COVID Survey</b>

**Susceptibility vs Resilience**  
**Wellbeing I vs Wellbeing II**



# 3 Big Questions

- Change
- Morale & Wellbeing of Safety-Critical Staff
- Lack and/or Delegation of Safety Oversight



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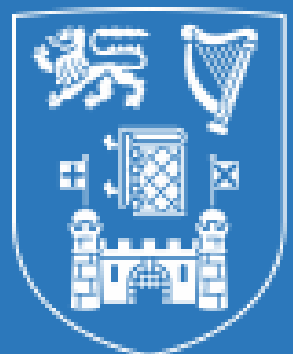


PEOPLE  
PROCESS  
PERFORMANCE



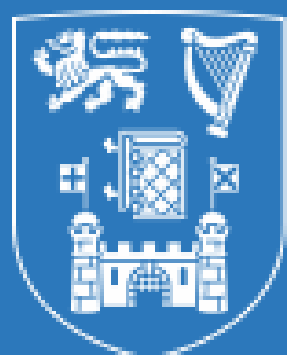
# COVID 19: Wellbeing – Positives & Challenges

#	Operational Scenario	Positives	Sources of Stress
1	In work	<p>Salary and financial wellbeing.</p> <p>Getting out of the house.</p> <p>Purpose obtained from job.</p>	<p>Flying in a different environment</p> <p>Keeping track of changing schedule</p> <p>Managing childcare while working</p> <p>Financial wellbeing – reduced salary</p> <p>Uncertainty as to future financial security</p> <p>Different treatment of colleagues – guilt, discrimination</p> <p>Uncertainty about status of co-pilot (severity of suffering)</p> <p>Potential bereavement</p> <p>Social isolation</p> <p>Loss of social network</p> <p>Difficulties maintaining social network</p> <p>Potential illness/health challenges in family</p>



# COVID 19: Wellbeing – Positives & Challenges

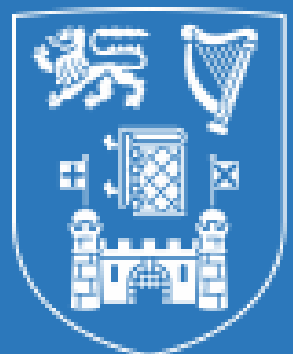
#	Operational Scenario	Positives	Sources of Stress
2	Off work	<p>Improved sleep.</p> <p>Improved diet.</p> <p>More time with family.</p> <p>Opportunity to take exercise (albeit limited with government rules/2km).</p>	<p>Financial wellbeing – reduced salary and or unemployment</p> <p>Uncertainty as to financial security</p> <p>Social isolation</p> <p>Loss of social network</p> <p>Difficulties maintaining social network</p> <p>Loneliness</p> <p>Not enough ‘me time’</p> <p>Too much time with family</p> <p>Lack of routine</p> <p>Emotional instability</p> <p>Social isolation</p> <p>Loss of social network</p> <p>Difficulties maintaining social network</p> <p>Potential illness/health challenges in family</p> <p>Potential bereavement</p>





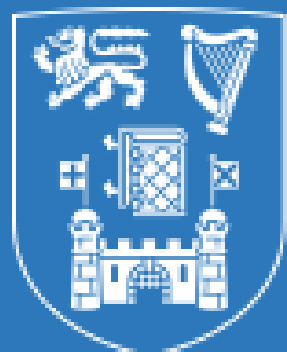
# COVID 19: Wellbeing – Positives & Challenges

#	Operational Scenario	Positives	Sources of Stress
3	Returning to work	<p>Getting out of the house.</p> <p>Purpose obtained from job.</p> <p>Social interaction.</p>	<p>Emotional instability</p> <p>Loss of social network</p> <p>Job proficiency and potential loss of confidence</p> <p>Training and competency – out of practice</p>



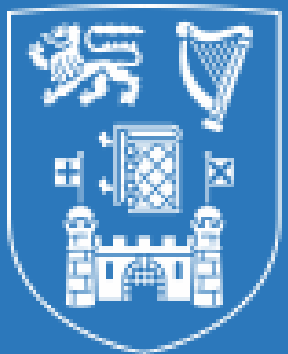
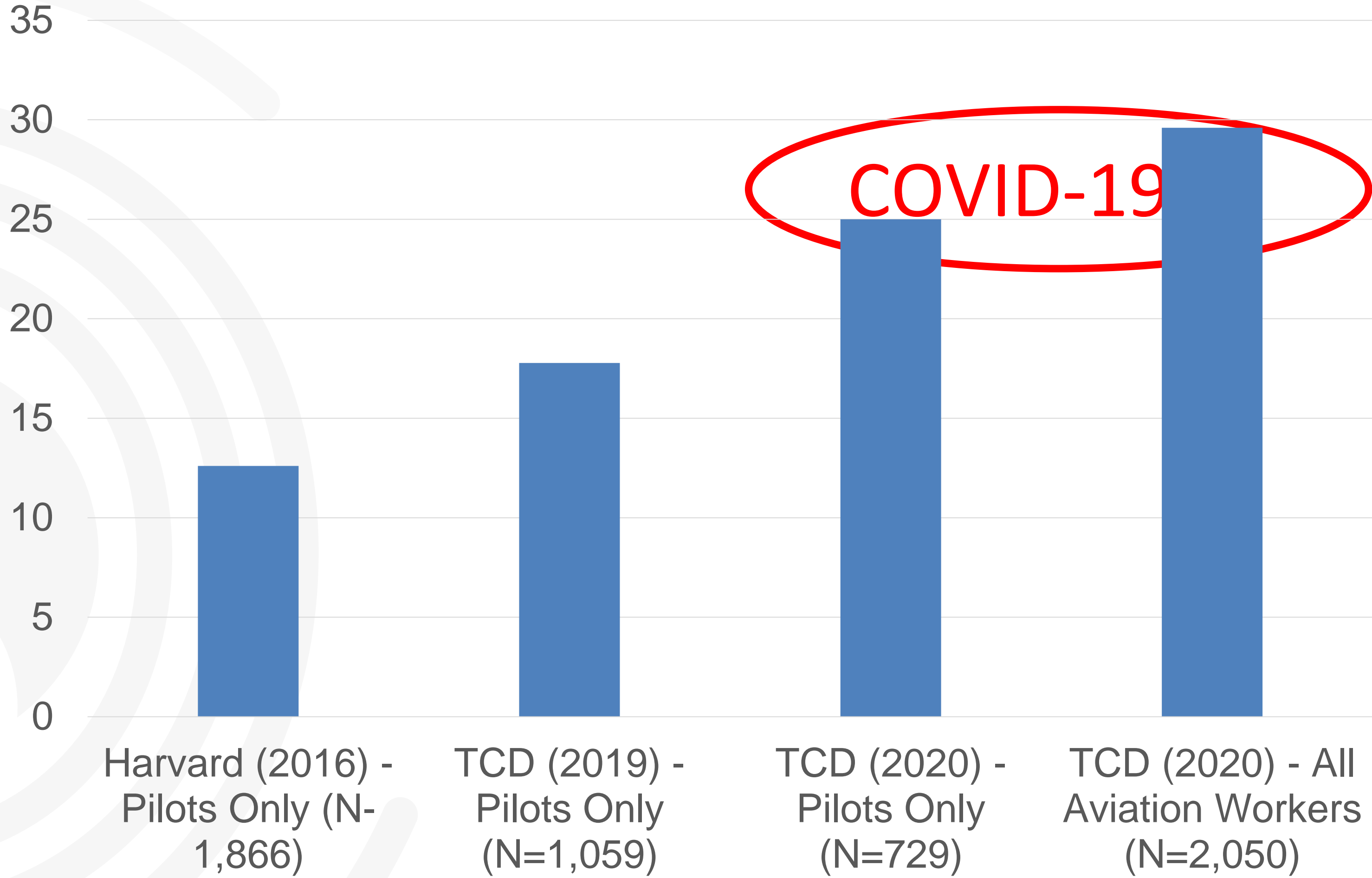
# The Impact of COVID-19 Pandemic on Aviation Workers & The Aviation System

- Anonymous online survey
- Involved Stakeholders in survey design
- PHQ-9 and GAD-7
- Snapshot (3 weeks – August 2020)
- Diverse sample
  - Age
  - Gender
  - Experience
- Targeted all Safety-Critical workers in Aviation
- 2,050 participants
- 38% Pilots
- 19% Cabin Crew
- 11% Air Traffic Control
- 8% Maintenance/Engineering

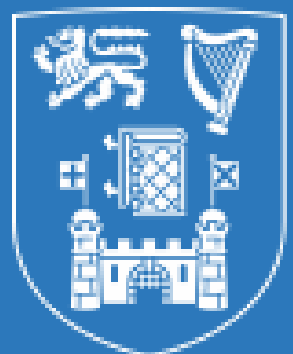
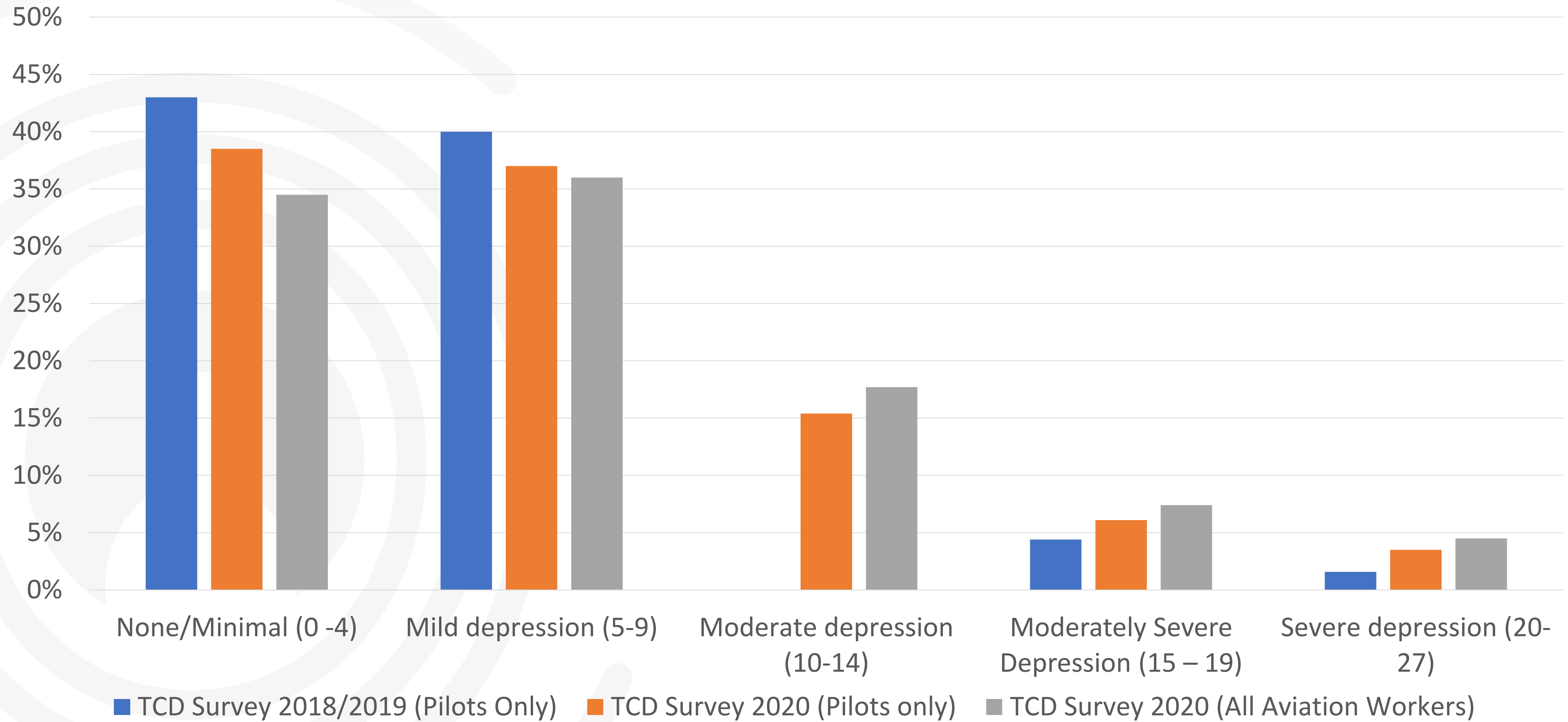




# Clinical Depression (Threshold $\geq 10$ , PHQ 9)

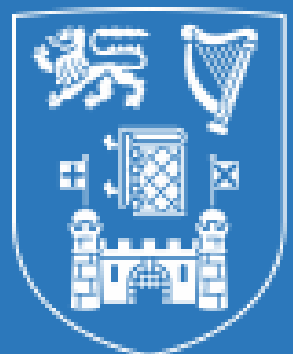
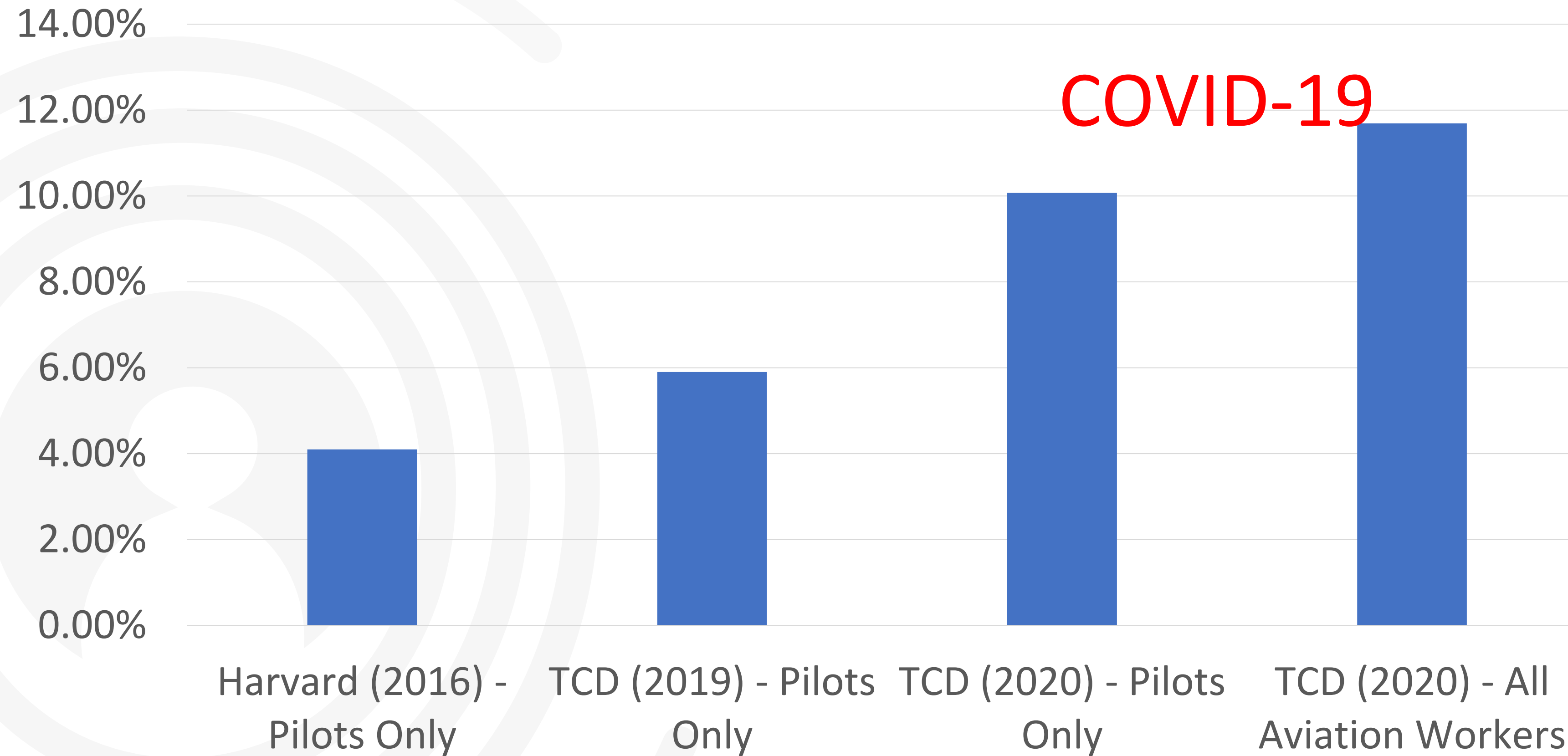


## Depression Severity (PHQ 9)

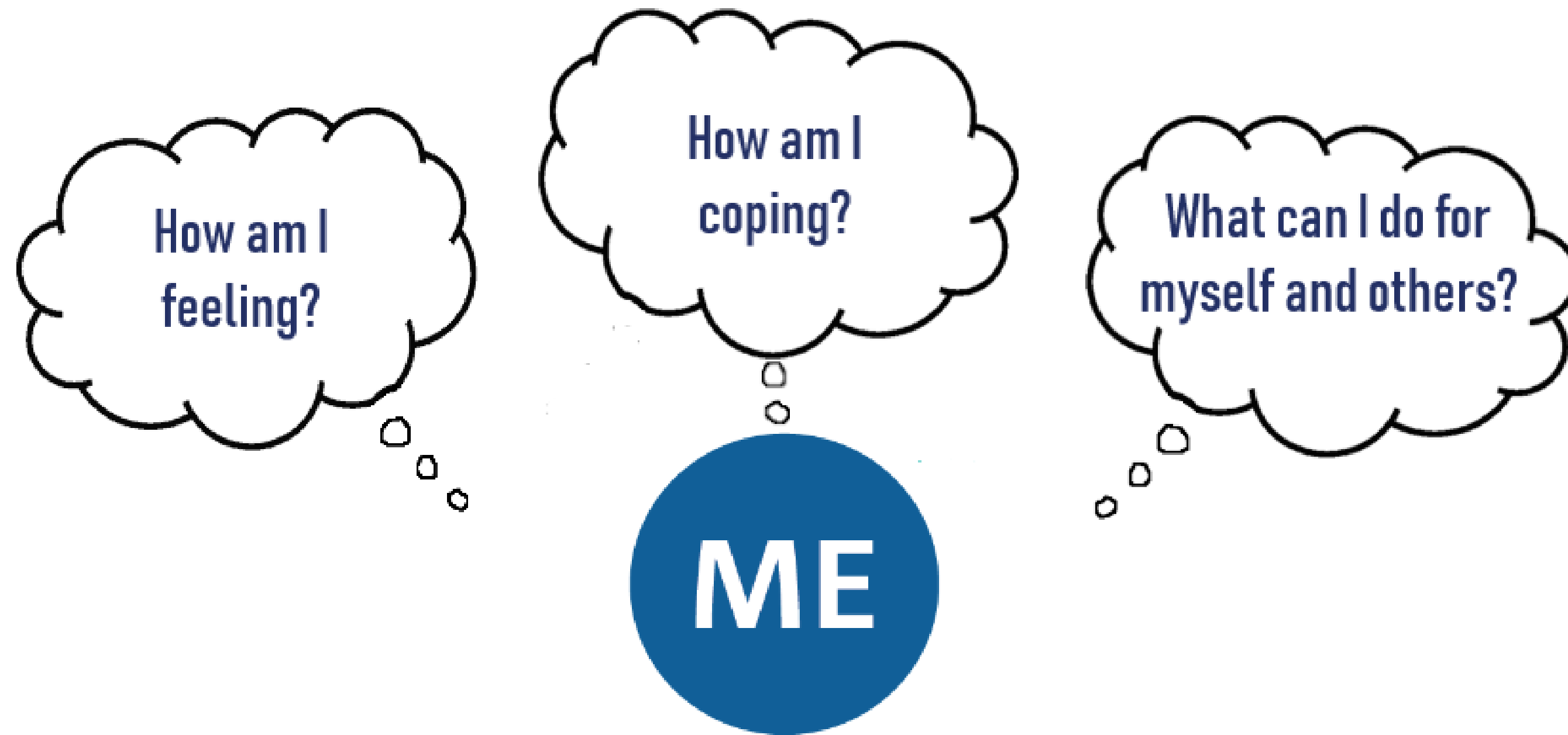




# Having suicidal thoughts

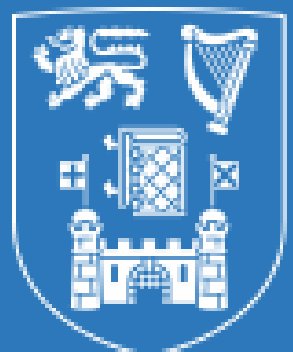


# Wellbeing Questions



Flight Safety Foundation: An Aviation Professional's Guide to Wellbeing (2020)

<https://flightsafety.org/wp-content/uploads/2020/04/Guide-to-Wellbeing.pdf>



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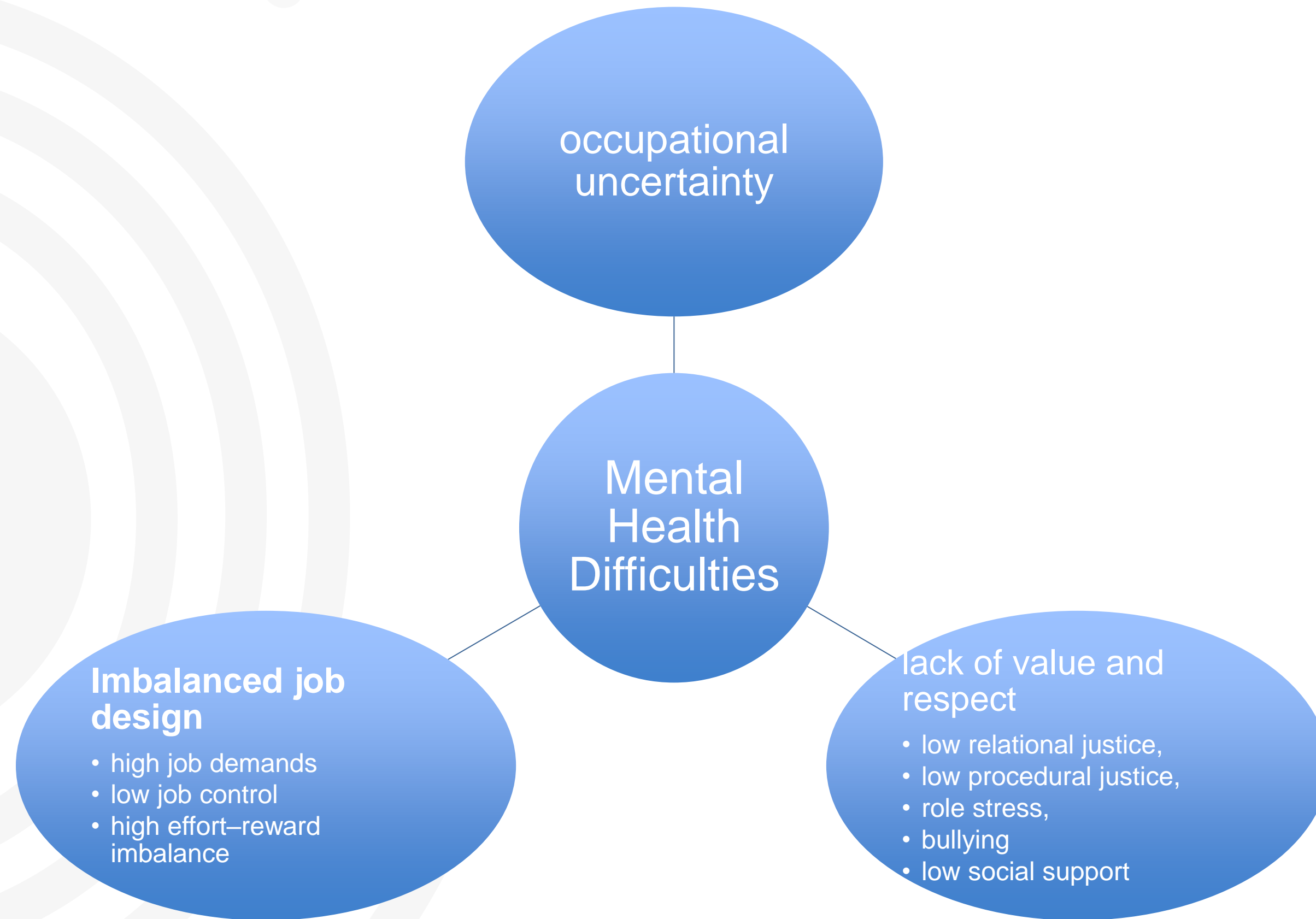
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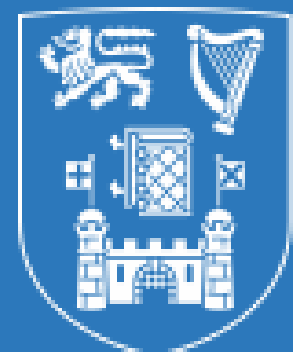
PEOPLE  
PROCESS  
PERFORMANCE



# Workplace issues associated with a greater risk of developing common mental health problems



Harvey SB, Modini M, Joyce S, et al  
Can work make you mentally ill? A  
systematic meta-review of work-related  
risk factors for common mental health  
problems  
Occupational and Environmental Medicine  
2017;74:301-310

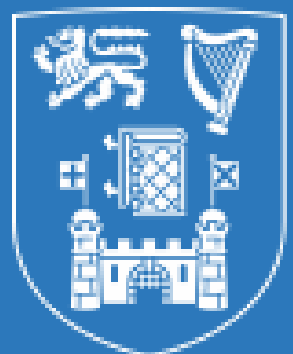
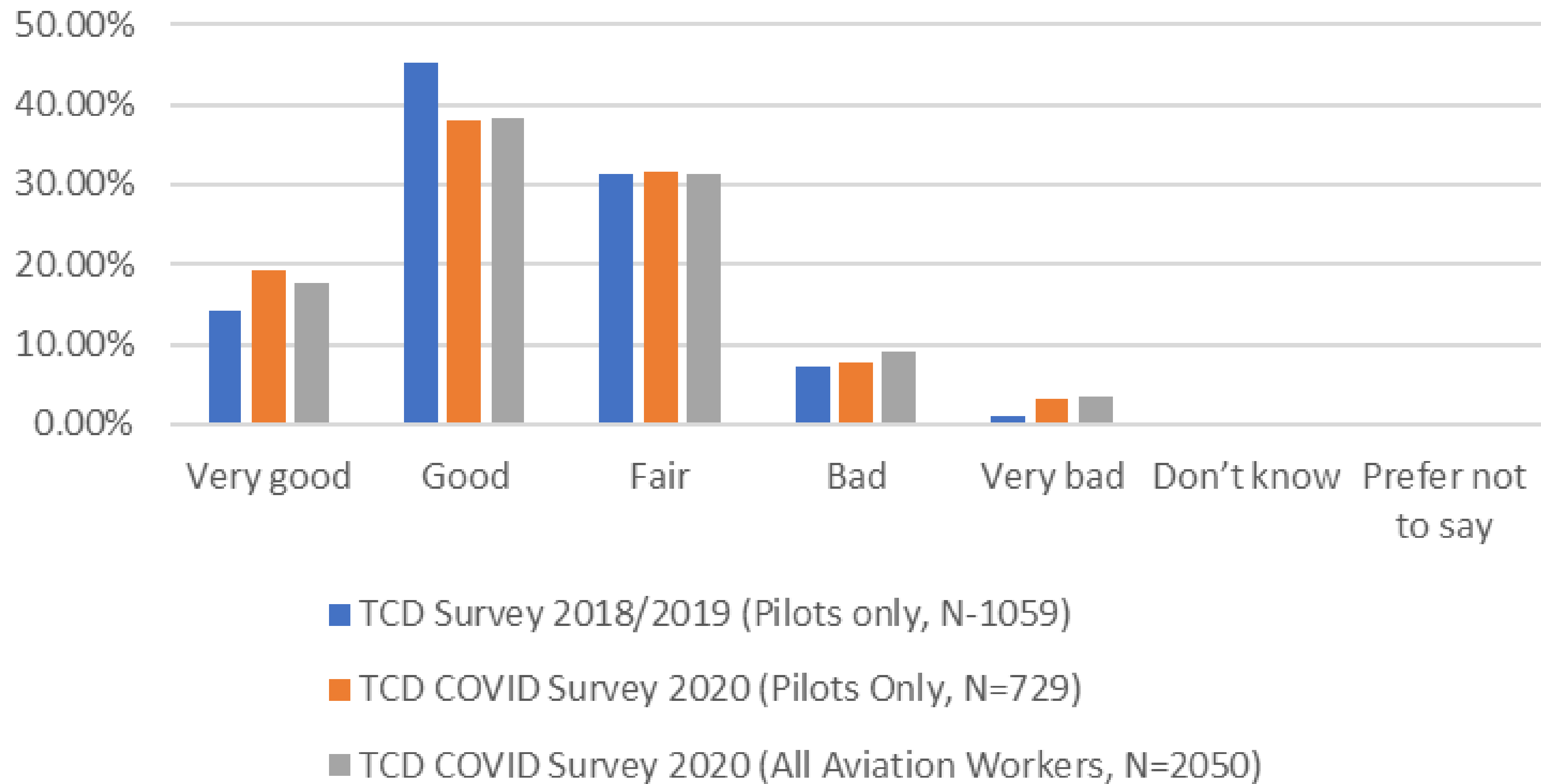


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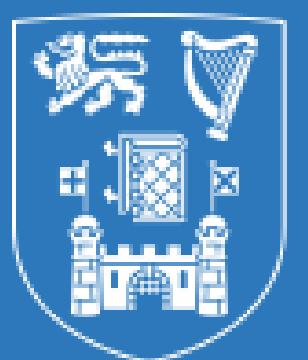
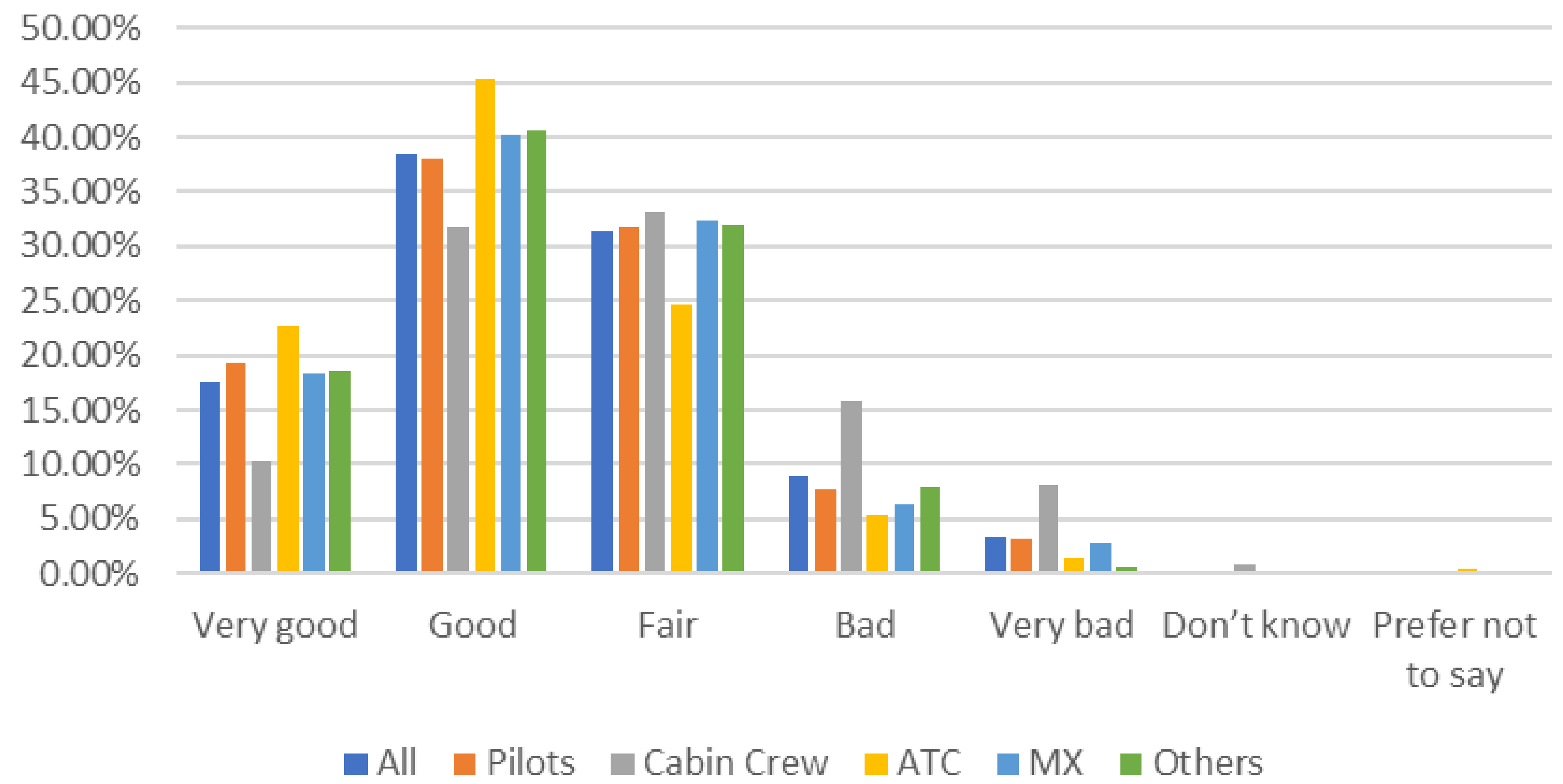
## Self Reported MH





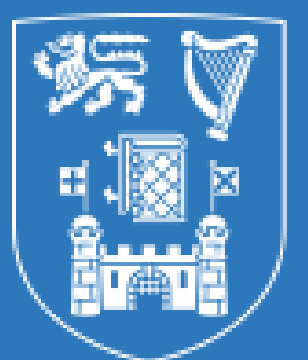
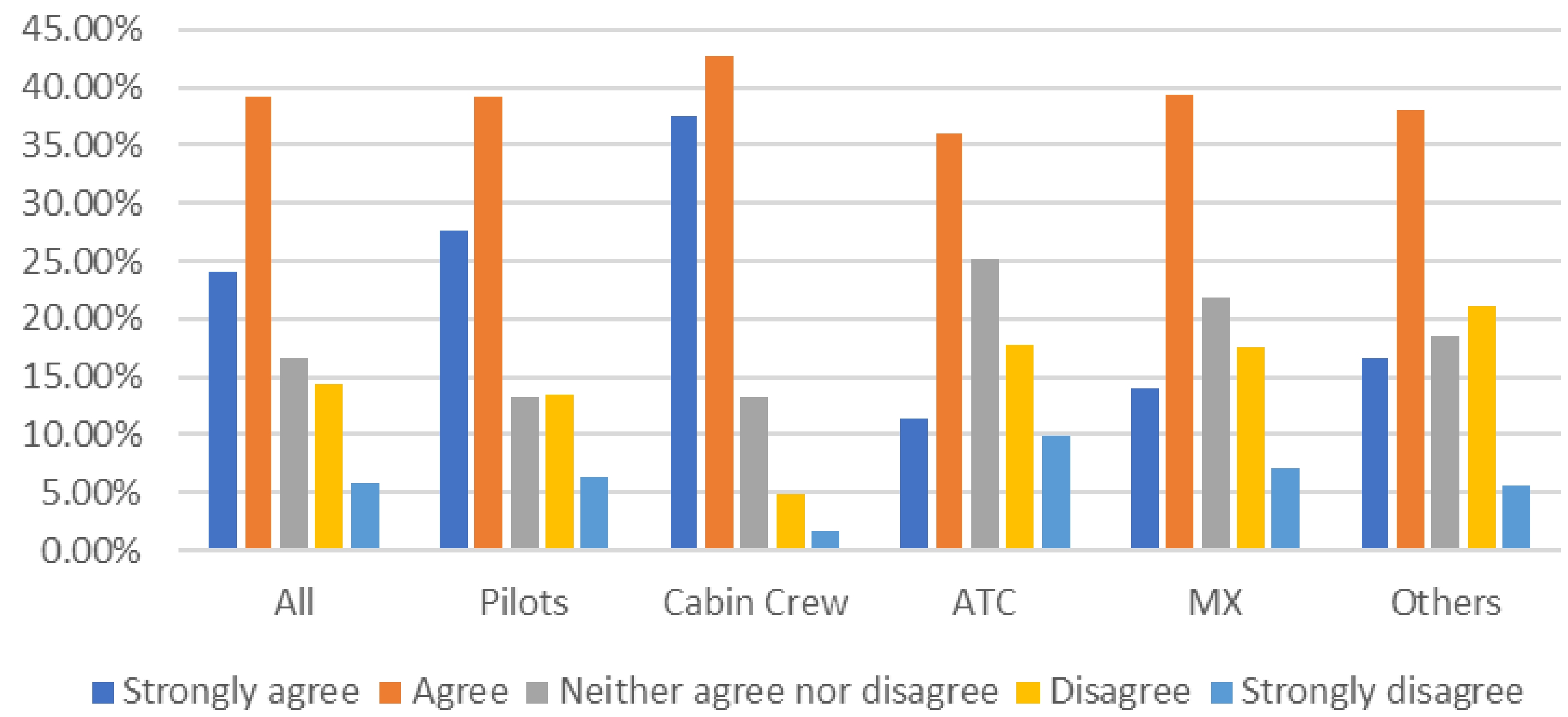
2020  
(COVID)

### Self Reported Mental Health (2020 Survey)



2020  
(COVID)

## My Mental Health Has Worsened Since COVID 10 Pandemic



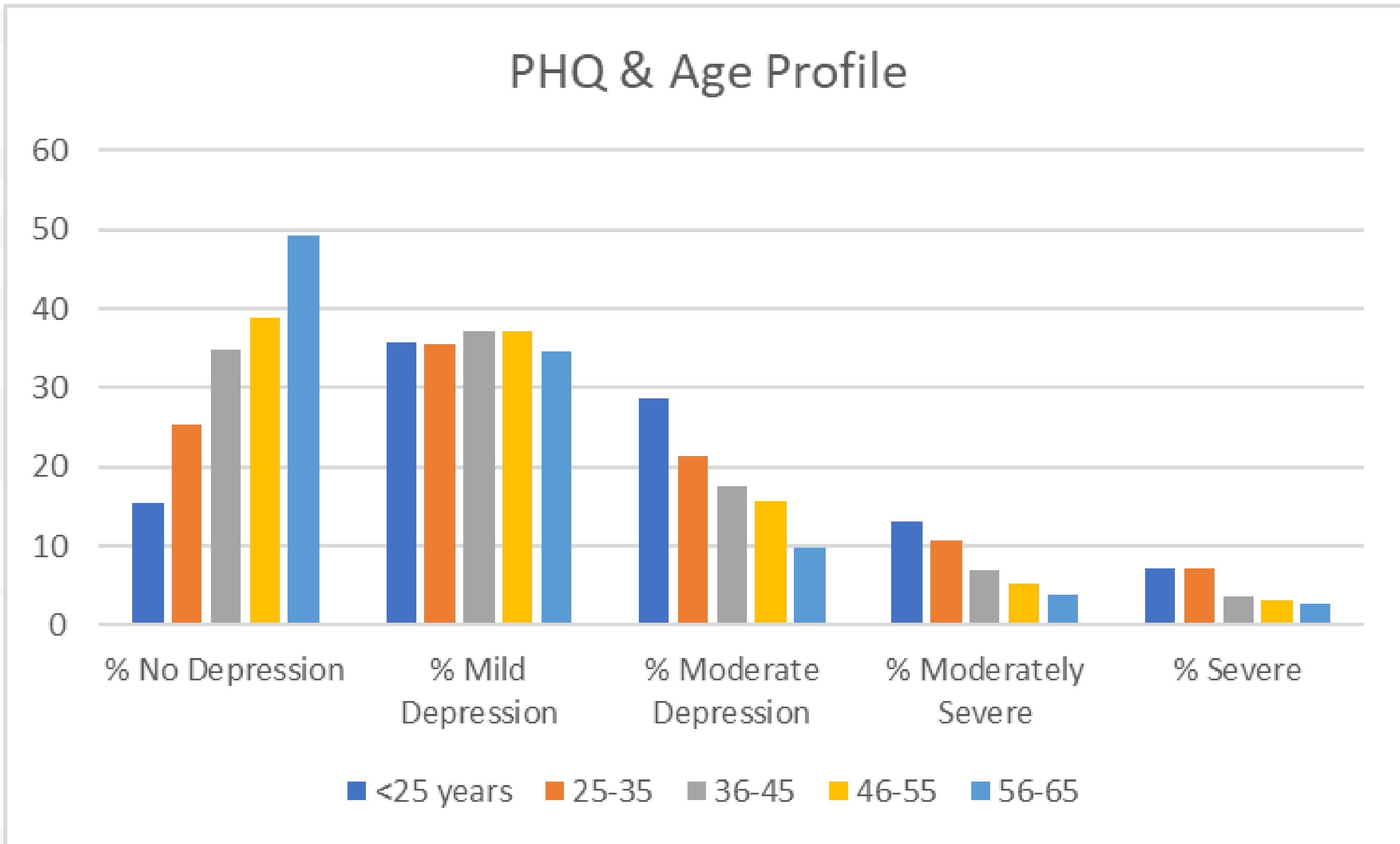
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PROCESS  
PERFORMANCE



2020  
(COVID)

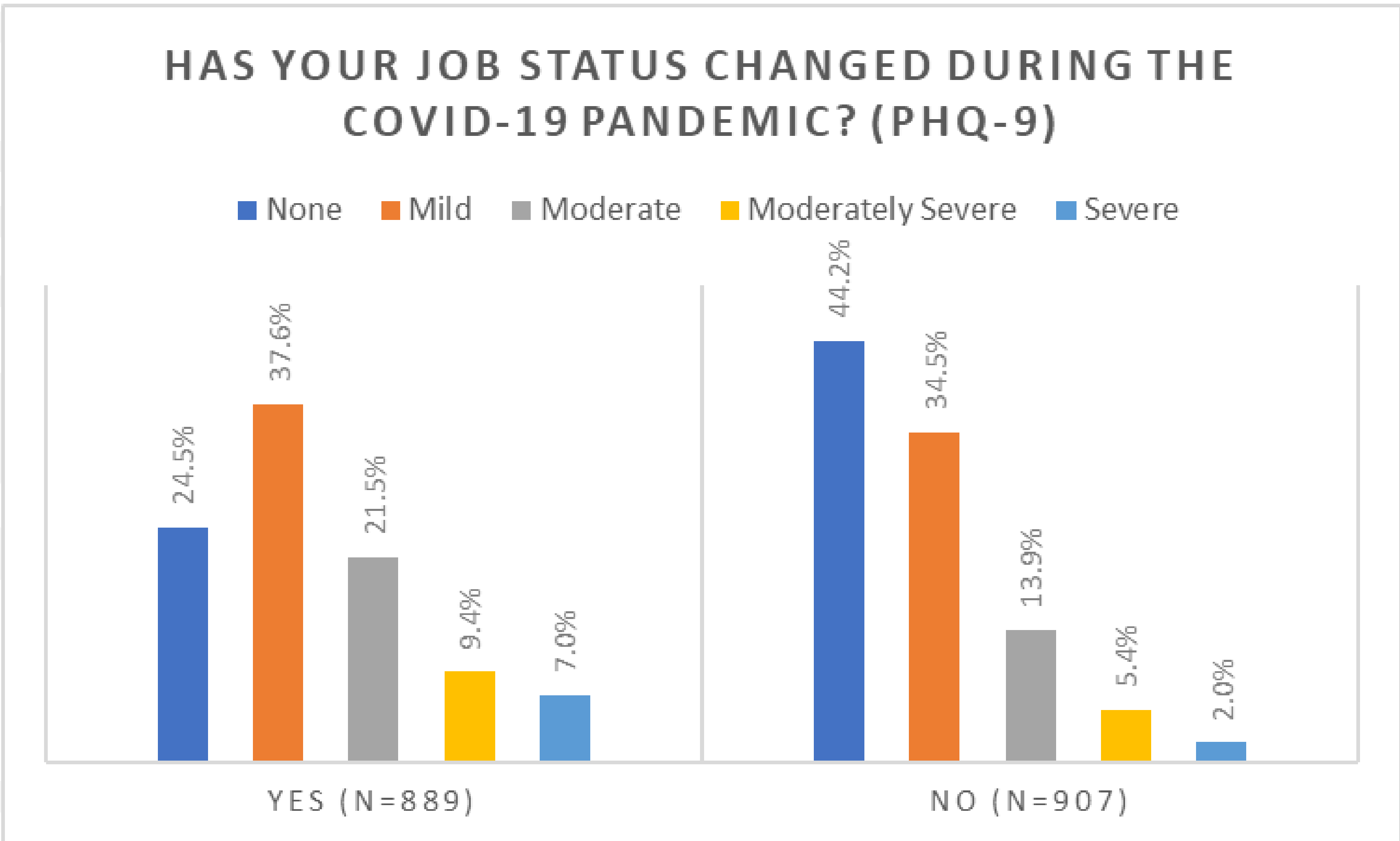


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PEOPLE  
PROCESS  
PERFORMANCE

2020  
(COVID)



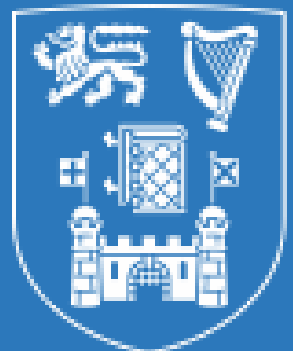
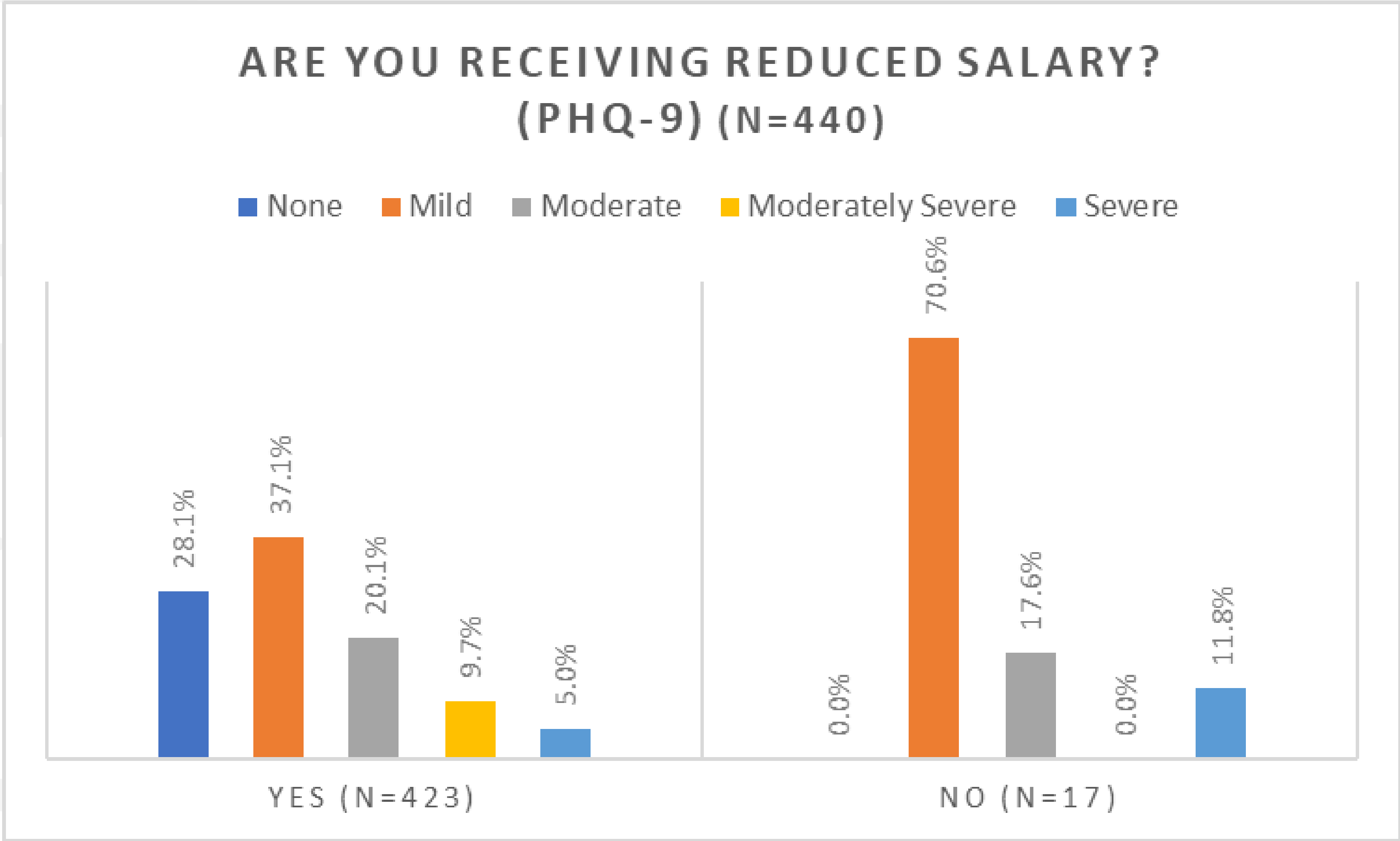
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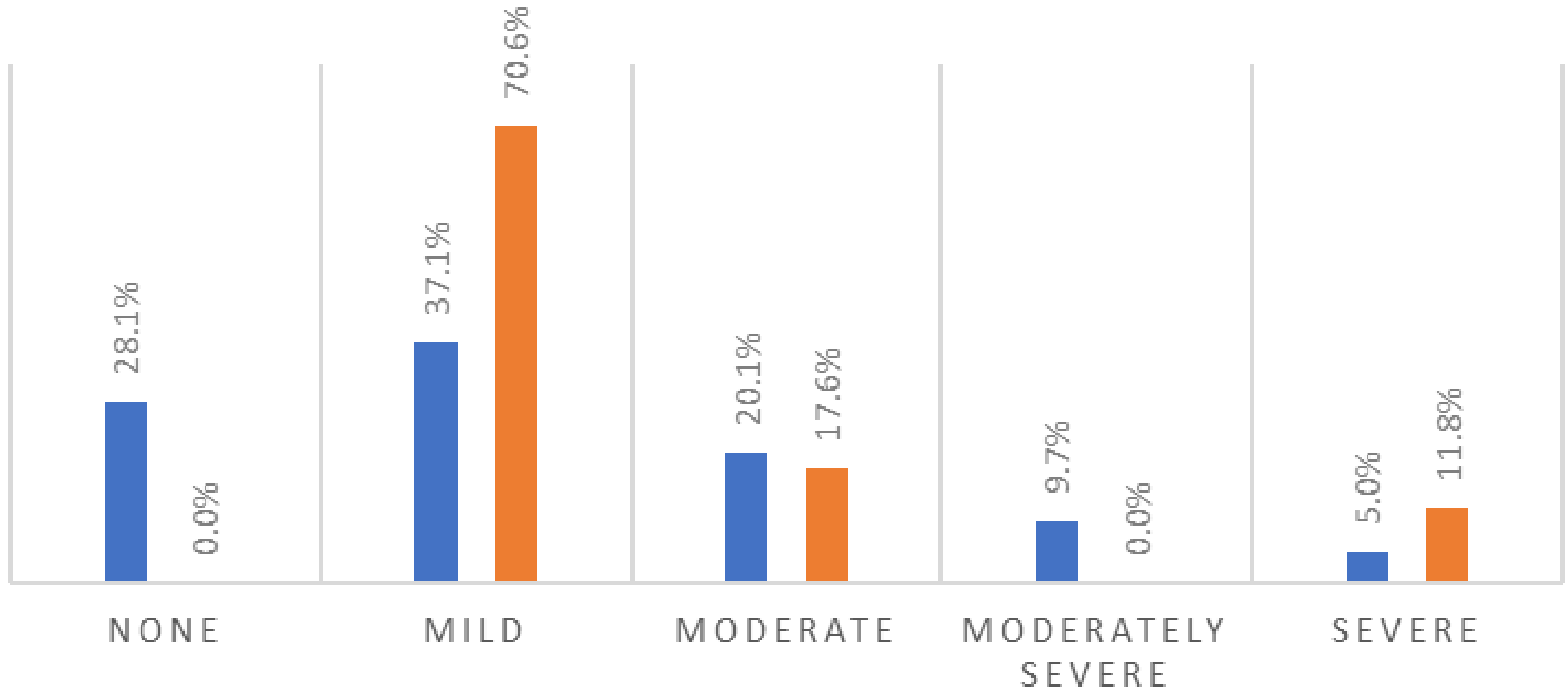
2020  
(COVID)



2020  
(COVID)

# ARE YOU RECEIVING REDUCED SALARY? (PHQ-9) (N=440)

■ Yes (n=423) ■ No (n=17)



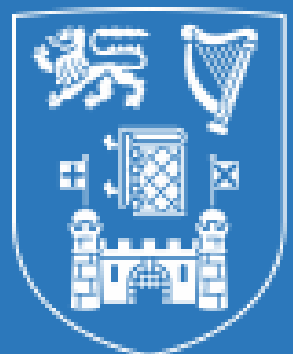
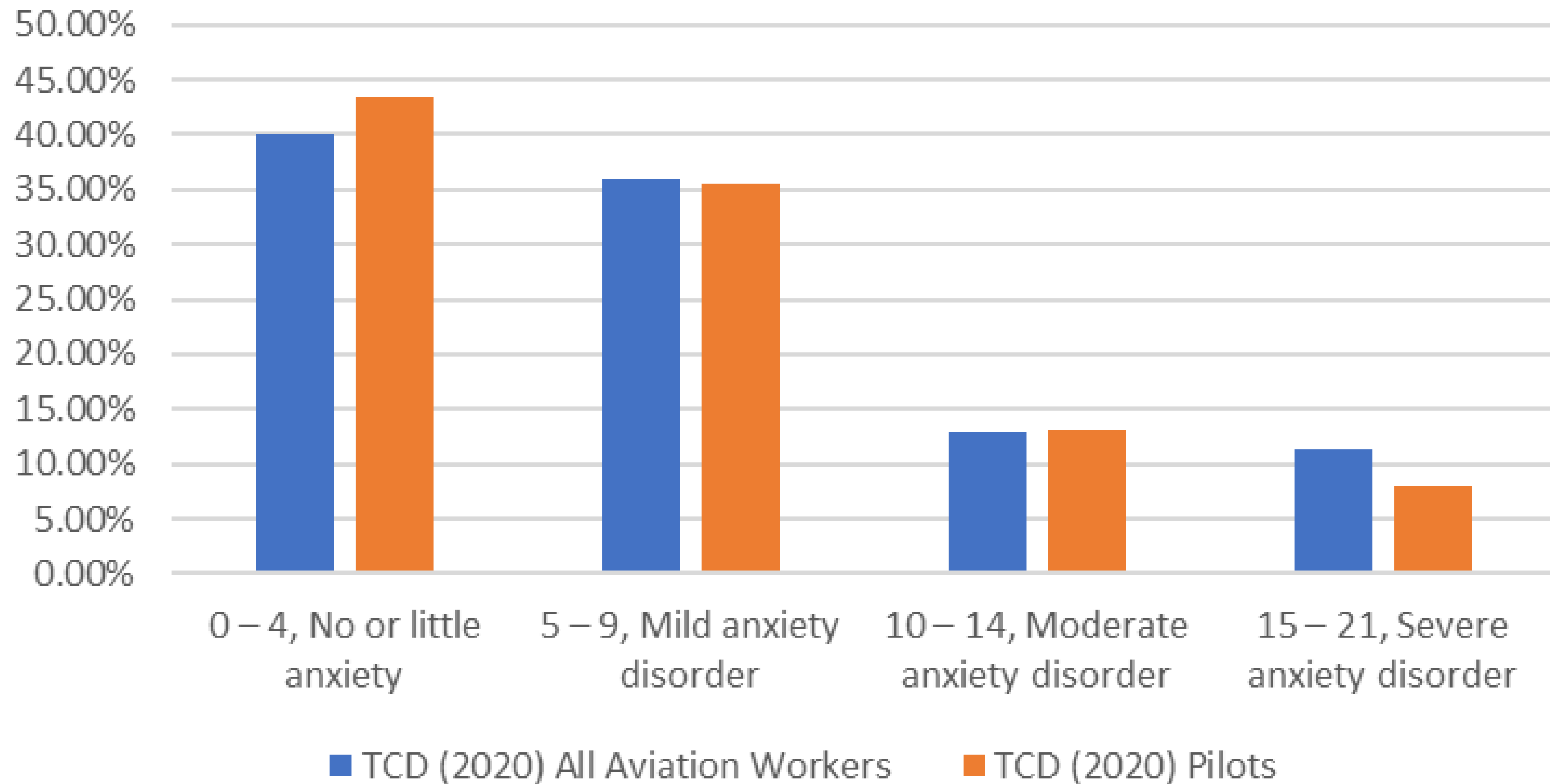
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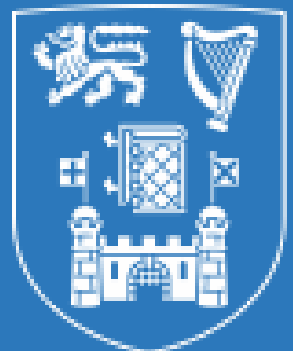
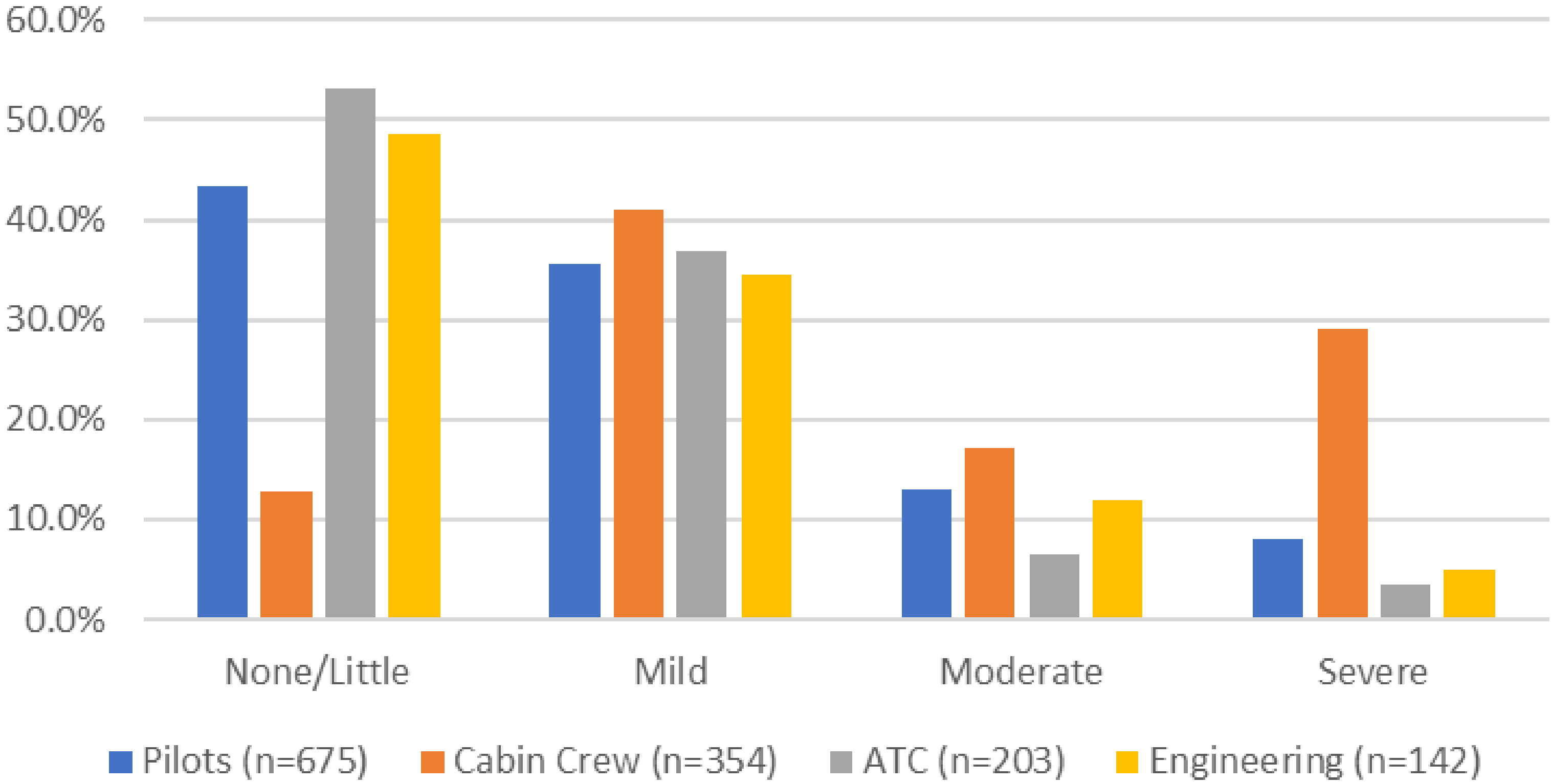
PEOPLE  
PROCESS  
PERFORMANCE



## GAD 7

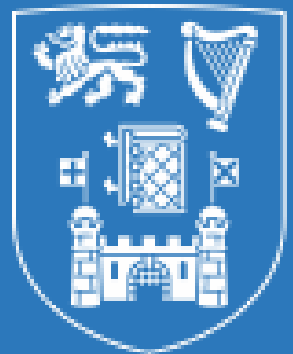
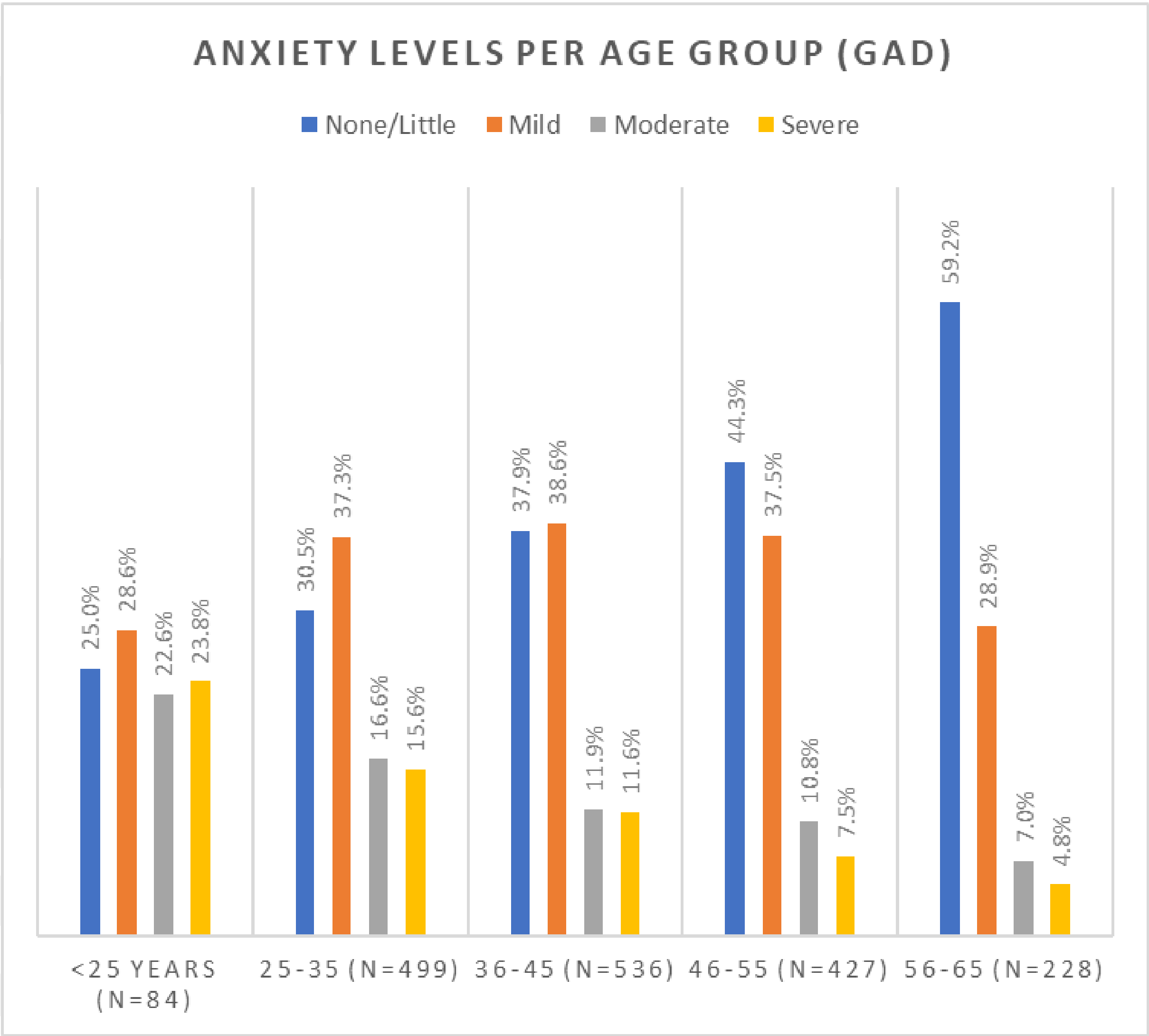


# Levels of Anxiety





2020  
(COVID)

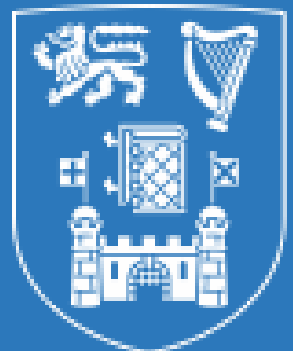
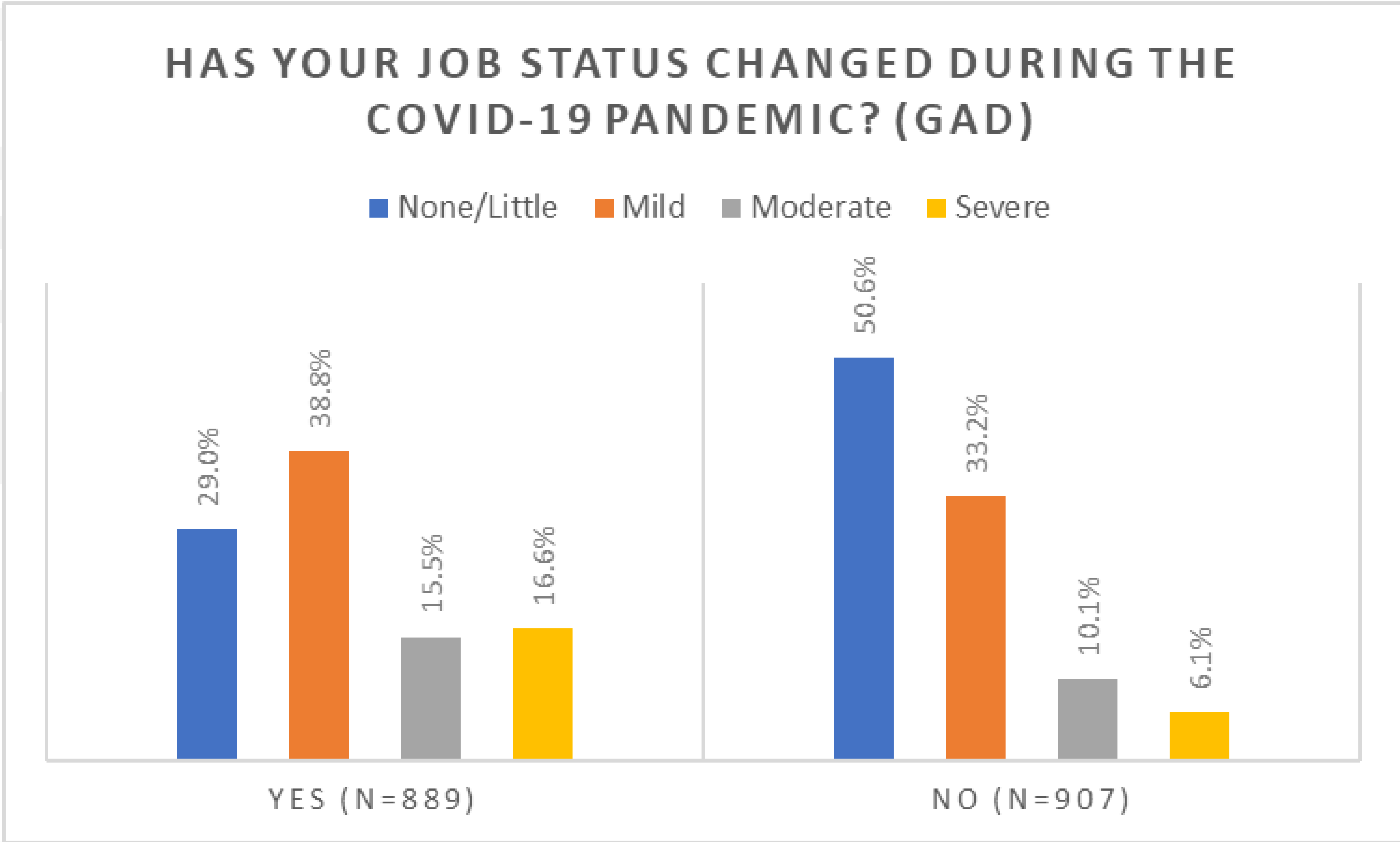


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PEOPLE  
PROCESS  
PERFORMANCE

2020  
(COVID)



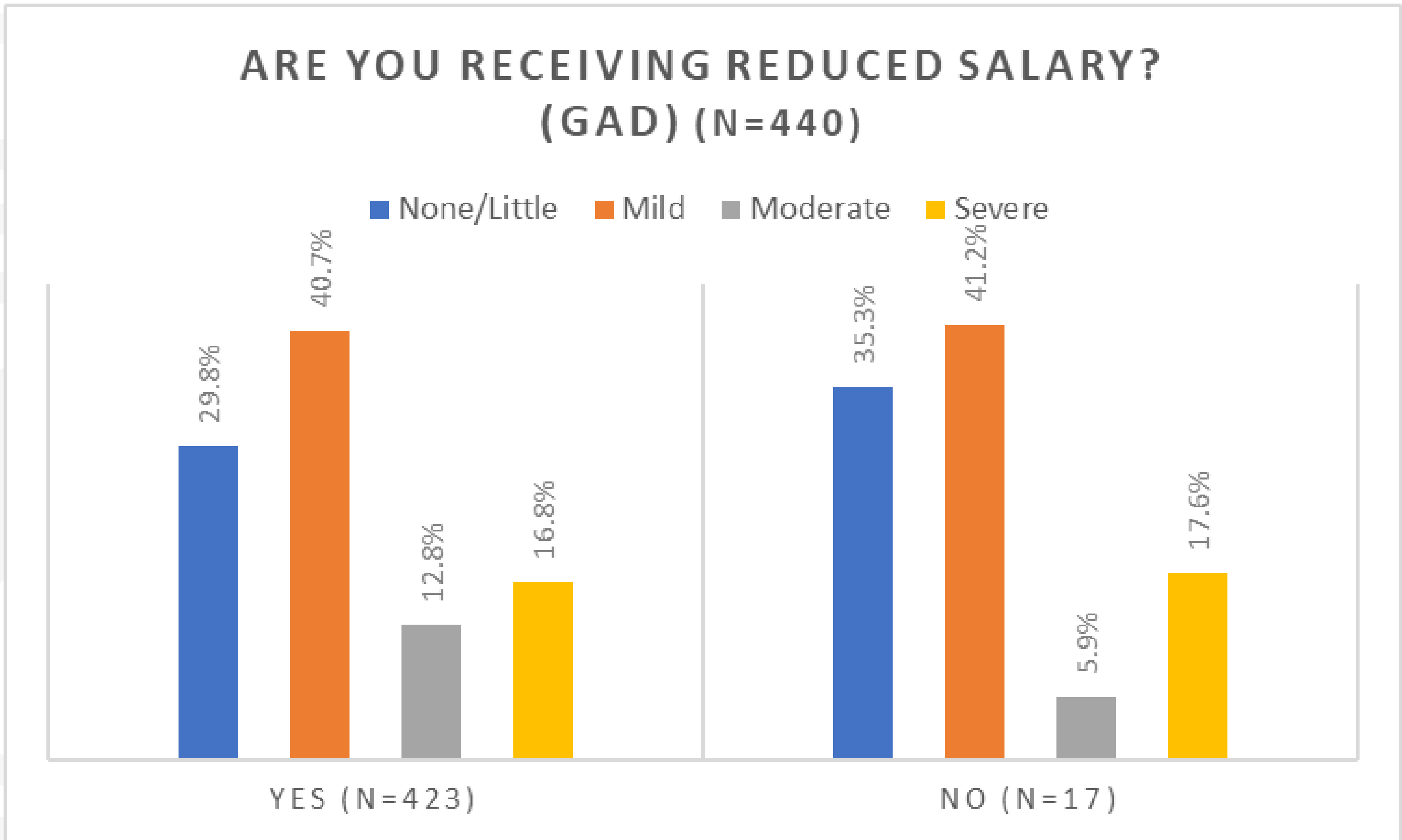
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PEOPLE  
PROCESS  
PERFORMANCE



2020  
(COVID)



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PEOPLE  
PROCESS  
PERFORMANCE

# Significant increases in Mental Health difficulties post-COVID

- Self-report data from a nationally representative Irish sample ( $N = 1,041$ ) collected in April 2020.
- positive for depression (22.77%)
- generalized anxiety (20.00%)
- anxiety/depression (27.67%)
- Screening positive for anxiety/depression was associated with
  - » younger age
  - » female sex
  - » loss of income due to COVID-19
  - » COVID-19 infection
  - » higher perceived risk of COVID-19 infection.

Hyland et al. (pre-print)

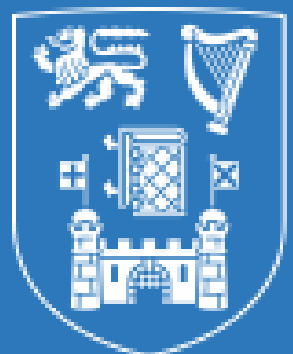
Self-report data from a nationally representative UK sample ( $N = 2025$ ) collected in March 2020.

- depression (22.12%)
- anxiety (21.63%)
- Anxiety/Depression (27.75%)

Screening for anxiety or depression, and trauma symptoms was associated with

- younger age
- presence of children in the home
- high estimates of personal risk
- low income
- loss of income, and pre-existing health conditions in self/others

– Shevlin et al. (pre-print)





# Problem Space, Stakeholders & Aviation Org Supports/Culture

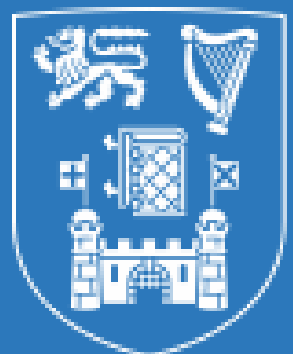
Defining/understanding the problem



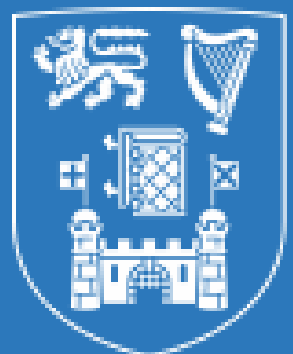
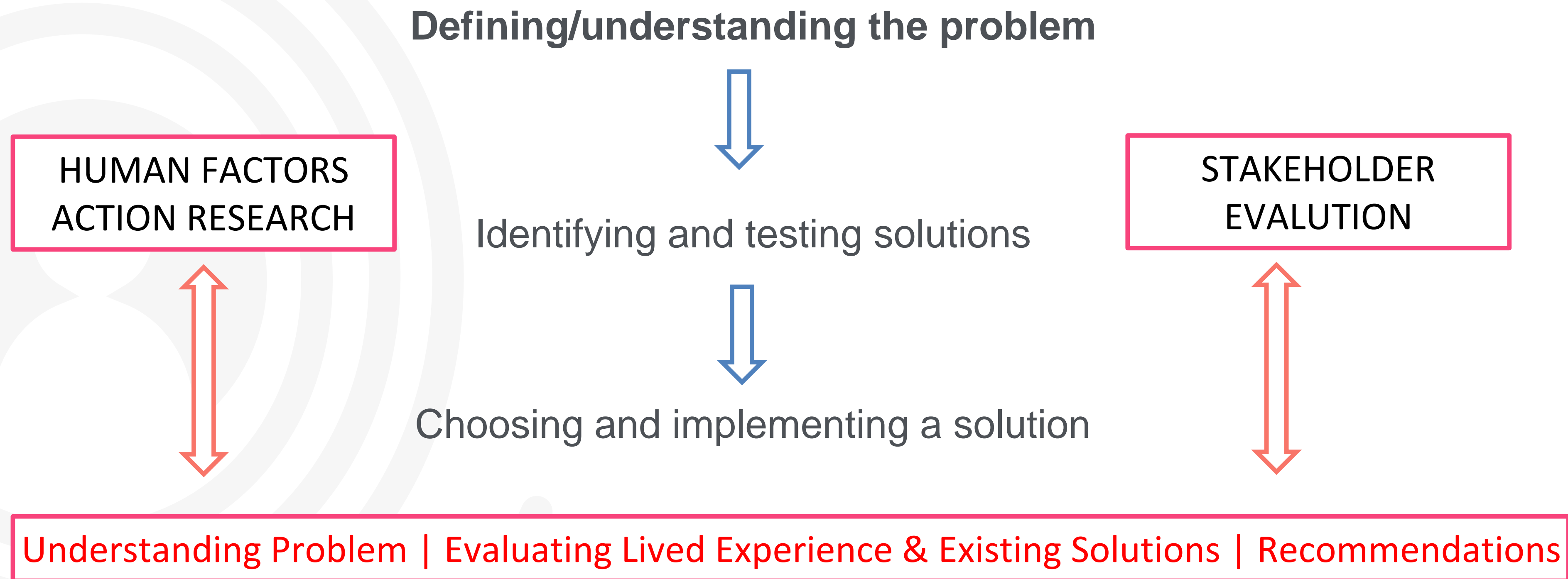
Identifying and testing solutions



Choosing and implementing a solution



# Problem Space, Stakeholders & Aviation Org Supports/Culture

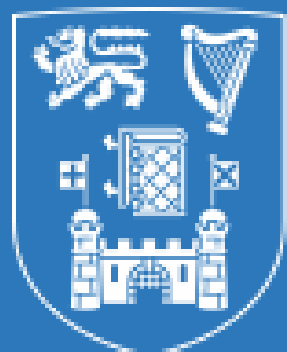




# Problem Space, Stakeholders & Aviation Org Supports/Culture

#	When	Group	Method/What
1	2015 to 2016	Pilots (N= 103)	Informal Interviews
2	<b>2018</b>	<b>Pilots (N=33)</b>	<b>Workshops</b>
3	<b>2018/2019</b>	<b>Pilots (N= 1,059)</b>	<b>Wellbeing Survey</b>
4	<b>2019/2020</b>	<b>Aviation stakeholders (N=15)</b>	<b>Workshops/Interviews</b>
5	<b>August 2020</b>	<b>All aviation workers (N=2050)</b>	<b>COVID Survey</b>

Understanding Problem | Evaluating Lived Experience & Existing Solutions | Recommendations





# Stakeholders: Principles & Values

## 1. Aviation Workers



## 2. Aviation Organisations supporting them

Airlines

MRO



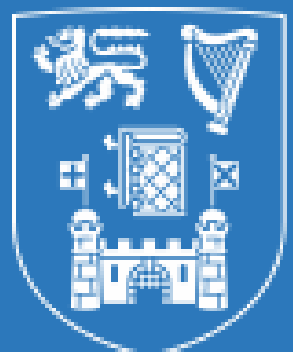
## 4. Regulator



**Professionalism | Duty of care/responsibility | Compassion | Safety Oversight | Responsible work**



**WELLBEING**



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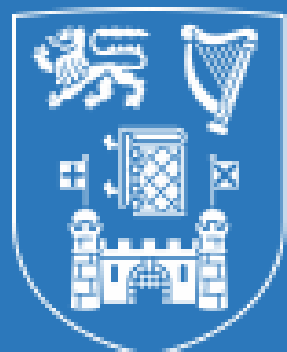


PEOPLE  
PROCESS  
PERFORMANCE



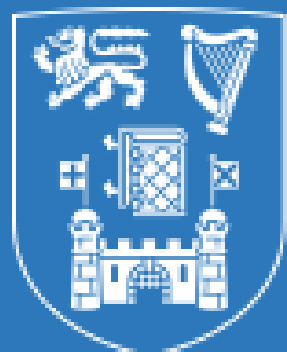
# States (Aviation Workers)

State to Promote/Support	Manage/Mitigate/Reduce	Avoid
Wellness in work Psychological wellbeing in work	Work related stress/WRS, Anxiety in work, Pressure, Poor mental health in work	Worsening of health in work, Work contributing to health problems , Poor mental health, Presenteeism, Absenteeism
Fit for work (fatigue levels)	Fatigue	Exhaustion & Burnout
Healthy behaviour	Unhealthy behaviour	Unhealthy behaviour
Coping/adaptive coping, Self-management of health	Maladaptive coping	Maladaptive coping, Self-harm
Work/life balance	Work negative impact on home life. Work/home conflict.	No work/life balance. Work negative impact on home life. Work/home conflict.
Self-efficacy	Loss of control/agency	Post-neurotic subject at work
Identity in work	Loss of identity	Objectification of worker
Professionalism	Challenges to professionalism	Lack of professionalism
Safe and effective performance	Performance errors, Unsafe behaviour, Near misses (safety events), Minor safety events	Performance Errors, Safety events, Incidents and accident in work



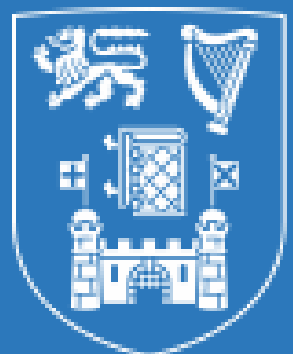
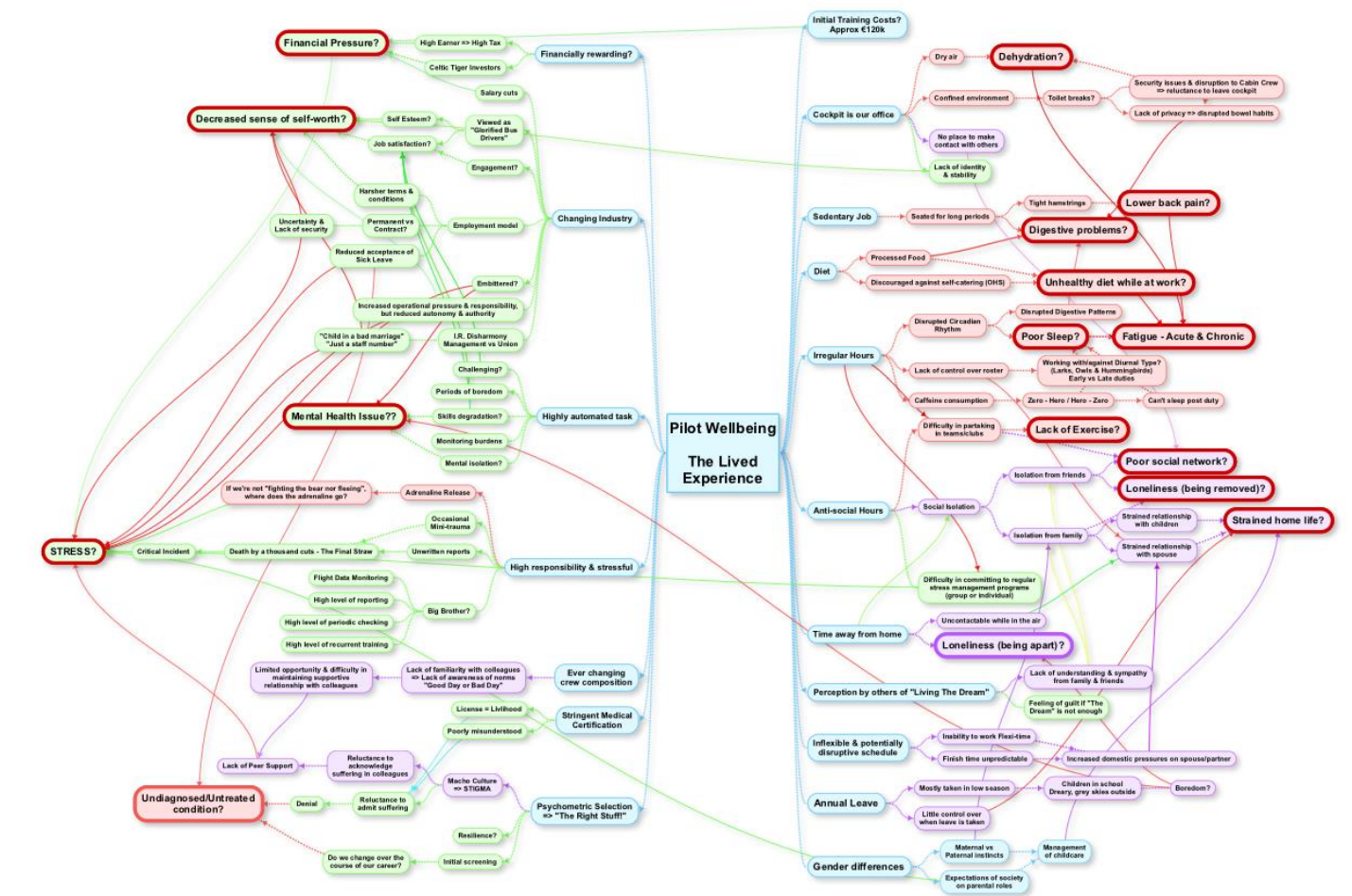
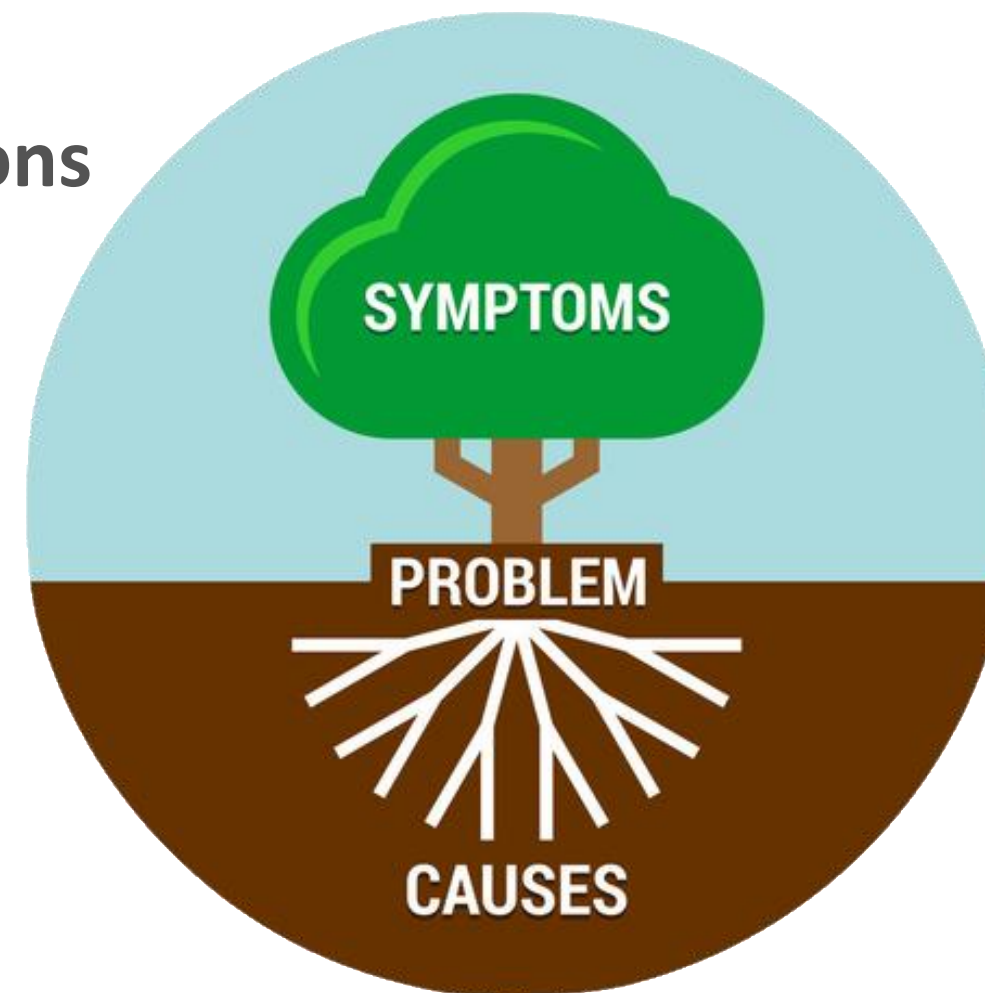
# States (Aviation Organisation)

State to Promote/Support	Manage/Mitigate/Reduce	Avoid
Healthy workforce	Health issues arising from stress in work, poor MH in work, absenteeism, presenteeism	Unhealthy workforce, absenteeism, presenteeism,
Positive work culture, culture of attending to wellbeing, disclosing problems	Fear disclosing MH problems, poor communications between staff regarding health and wellbeing	Unhealthy work culture, lack of disclosure
Responsible business (CSR & positive contribution to society and environment)	Negative impact – people, society, environment	Negative impact – people, society, environment
Compliance with regulatory requirements	Compliance breach and penalties	Compliance breach and penalties



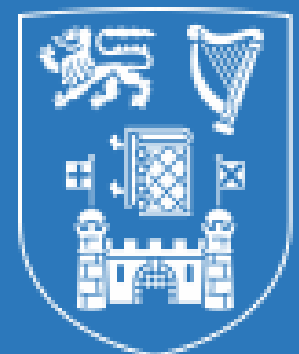
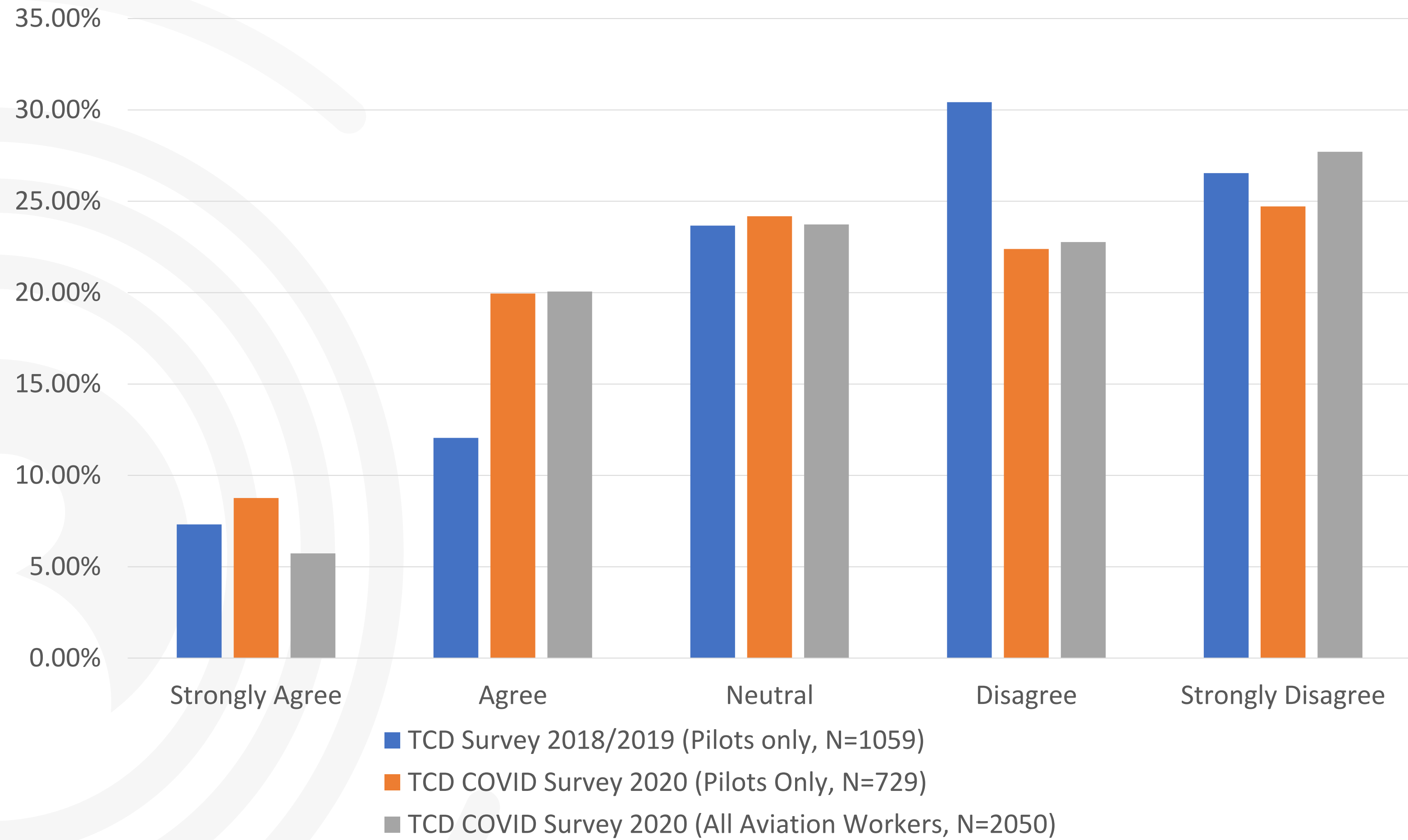
# Aviation Company: Wellbeing Approach & Culture

- Identity, principles & values/attitudes, culture
- Processes and practices associated with org functions
  - Occupational Health & Support
  - Training
  - EAP
  - Peer Support (small few within company)
  - *Safety/Risk*
  - *Flight Planning/Rostering*





# My Company Cares About My Wellbeing



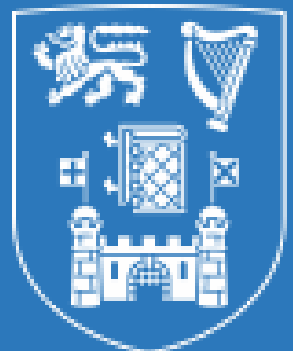
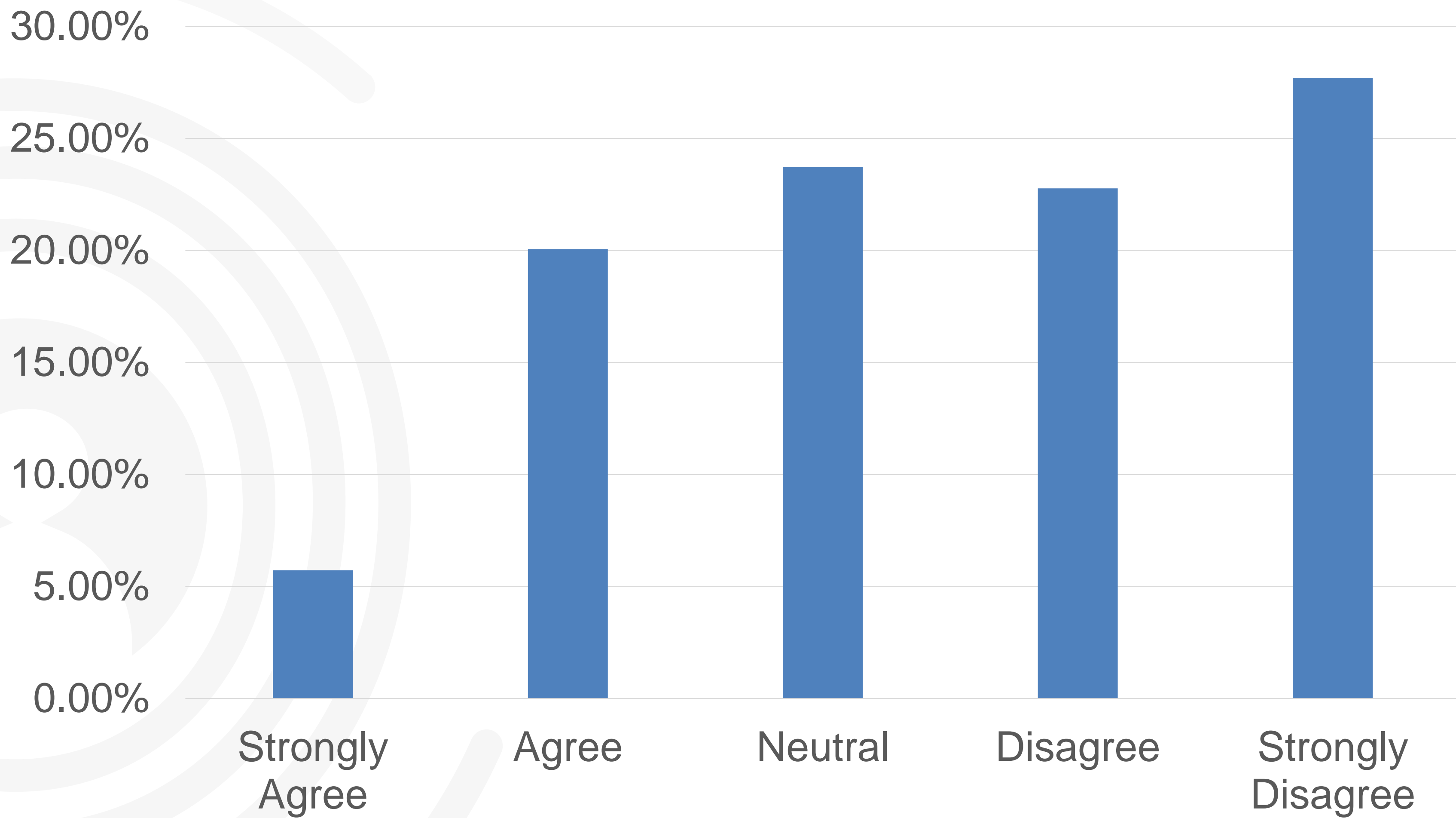
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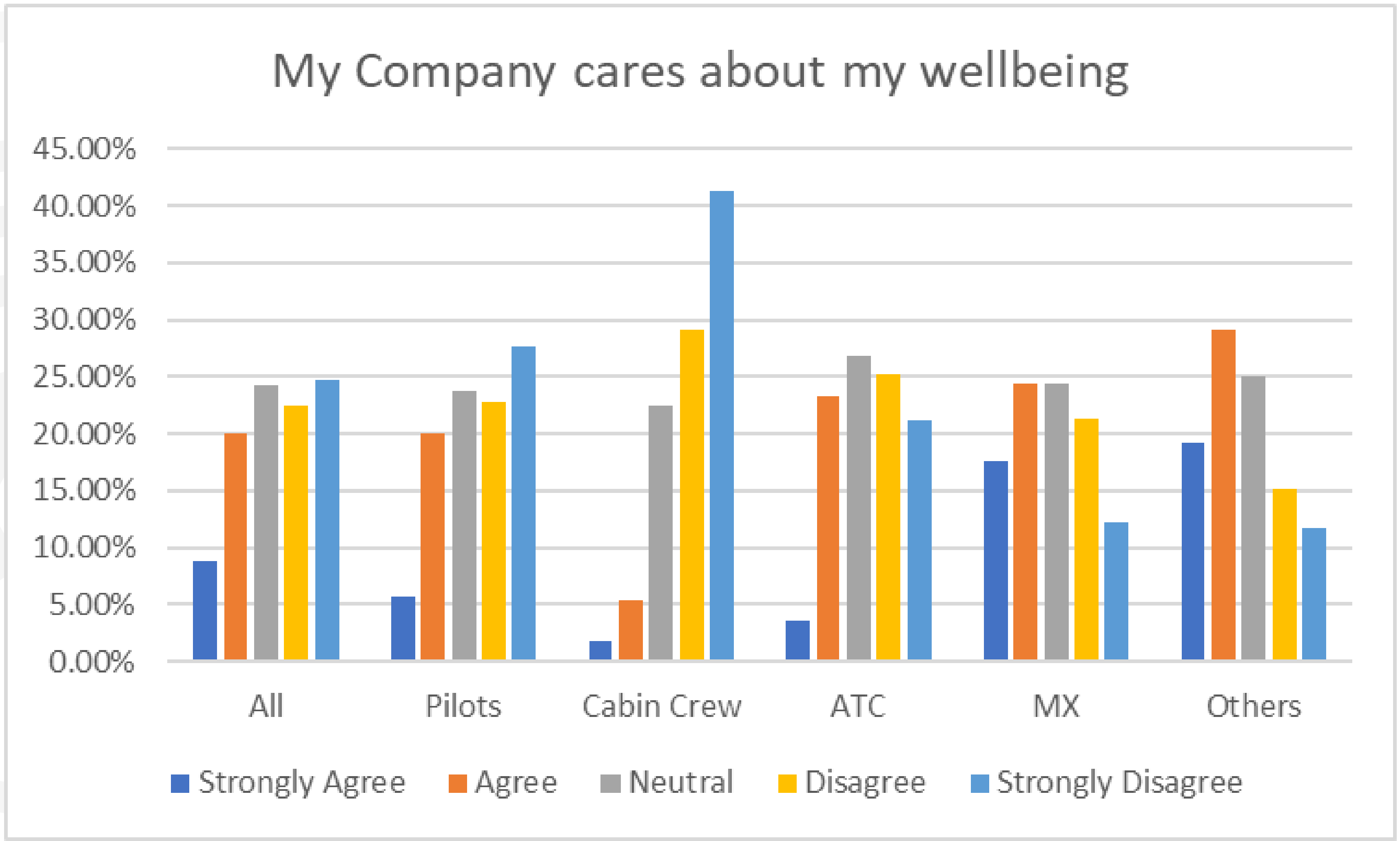
PEOPLE  
PROCESS  
PERFORMANCE

# My Company Cares About My Wellbeing

2020  
(COVID)



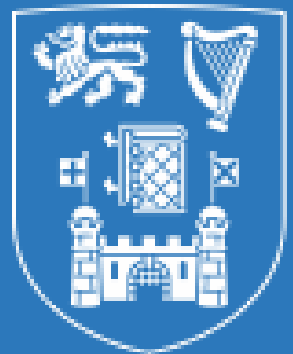
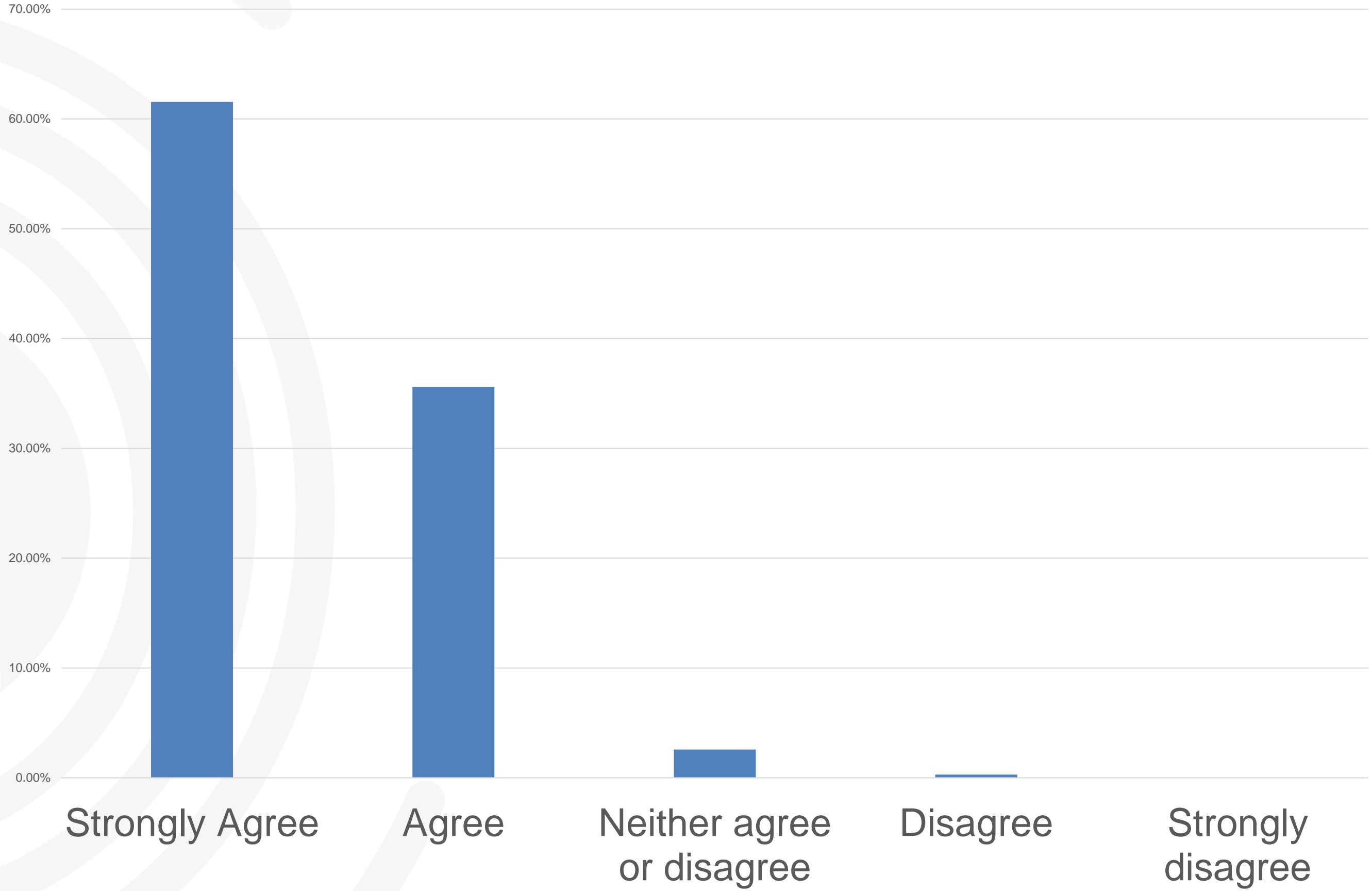
2020  
(COVID)



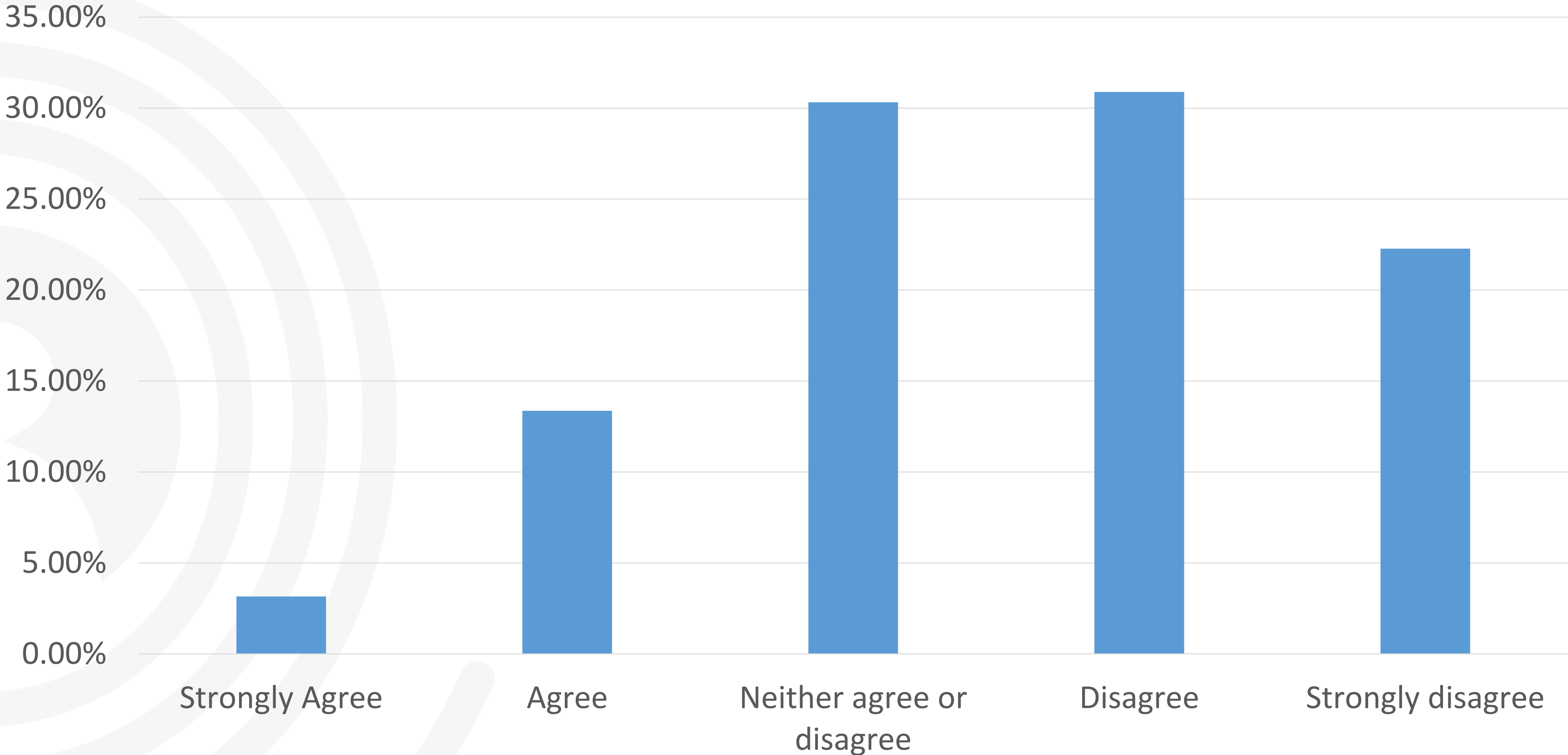


The process for supporting positive mental health and managing mental health problems in Pilots **SHOULD BE** clearly defined at an airline level

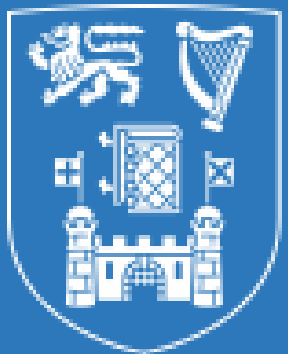
2018/2019  
(Pre  
COVID)



The process for supporting positive mental health and managing mental health problems in Pilots **IS** clearly defined at my airline



2018/2019  
(Pre  
COVID)



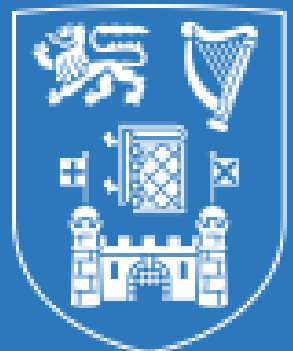
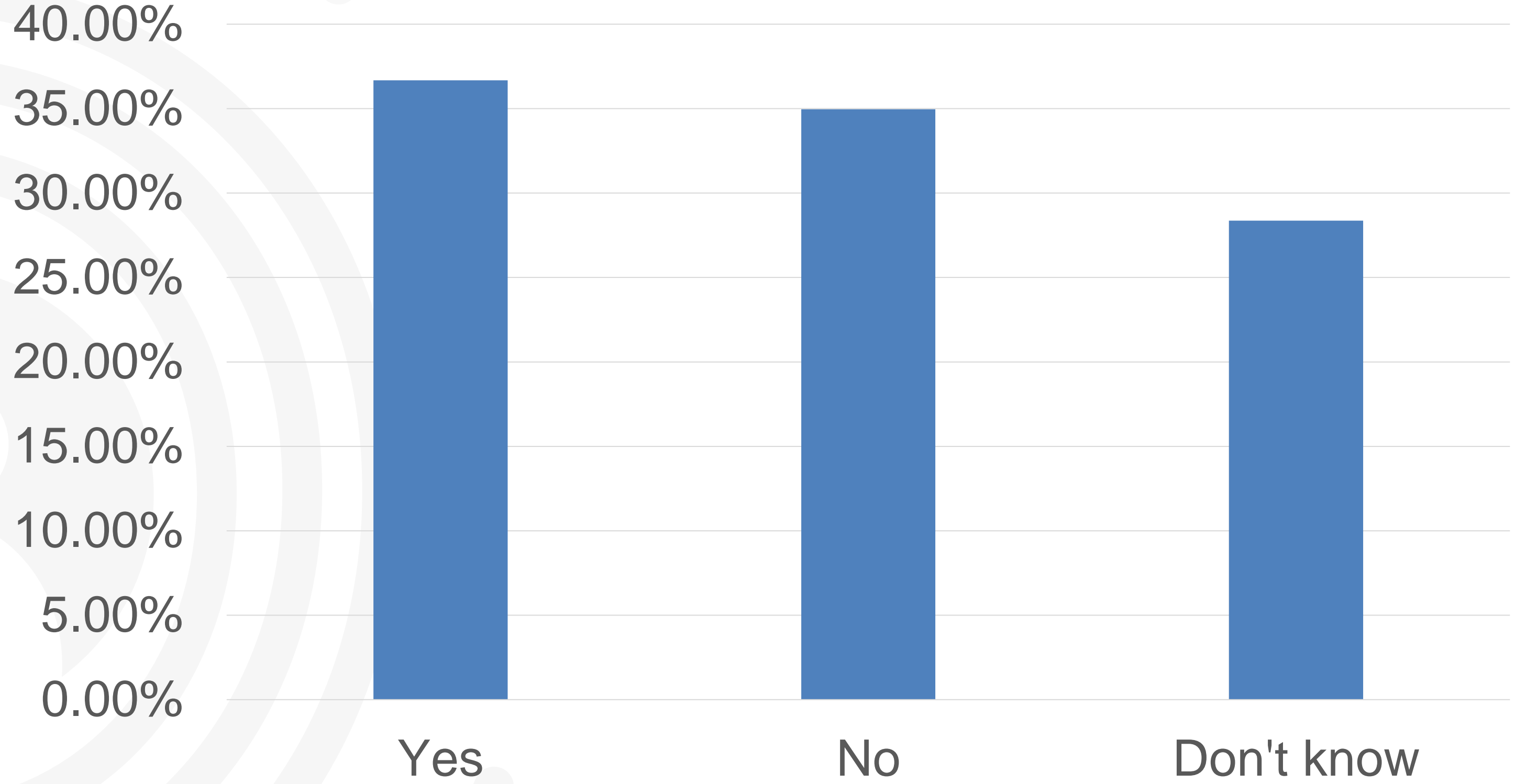
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PEOPLE  
PROCESS  
PERFORMANCE

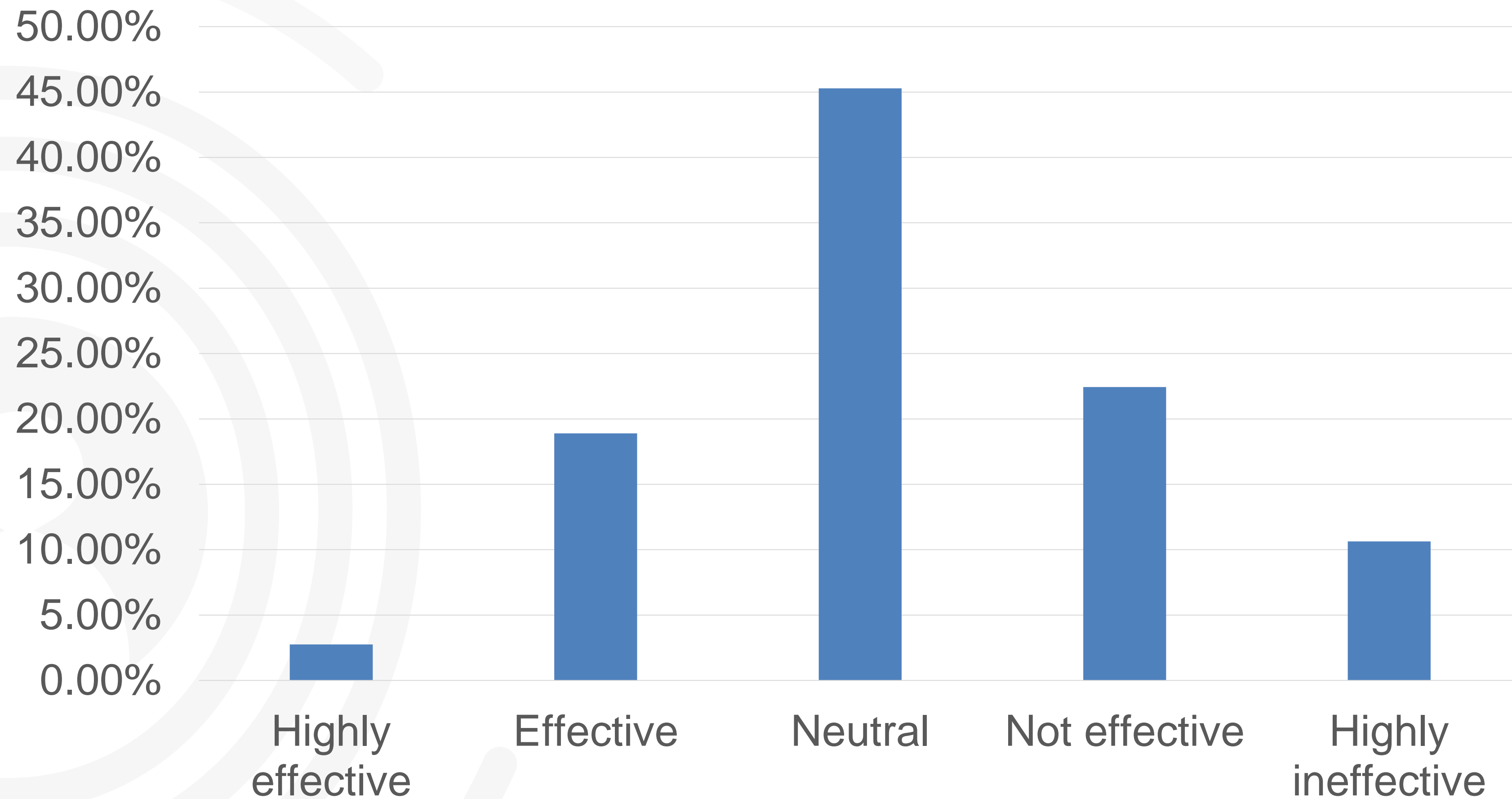
# Wellness Programmes Provided to Pilots at Airline

2018/2019  
(Pre  
COVID)

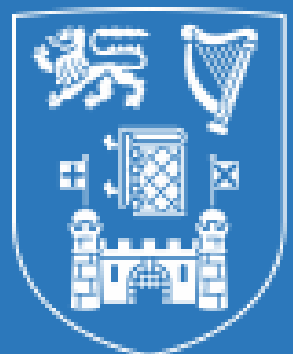




# How effective do you feel these programmes are?

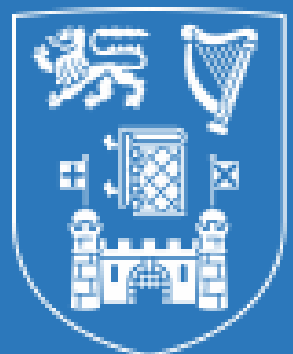
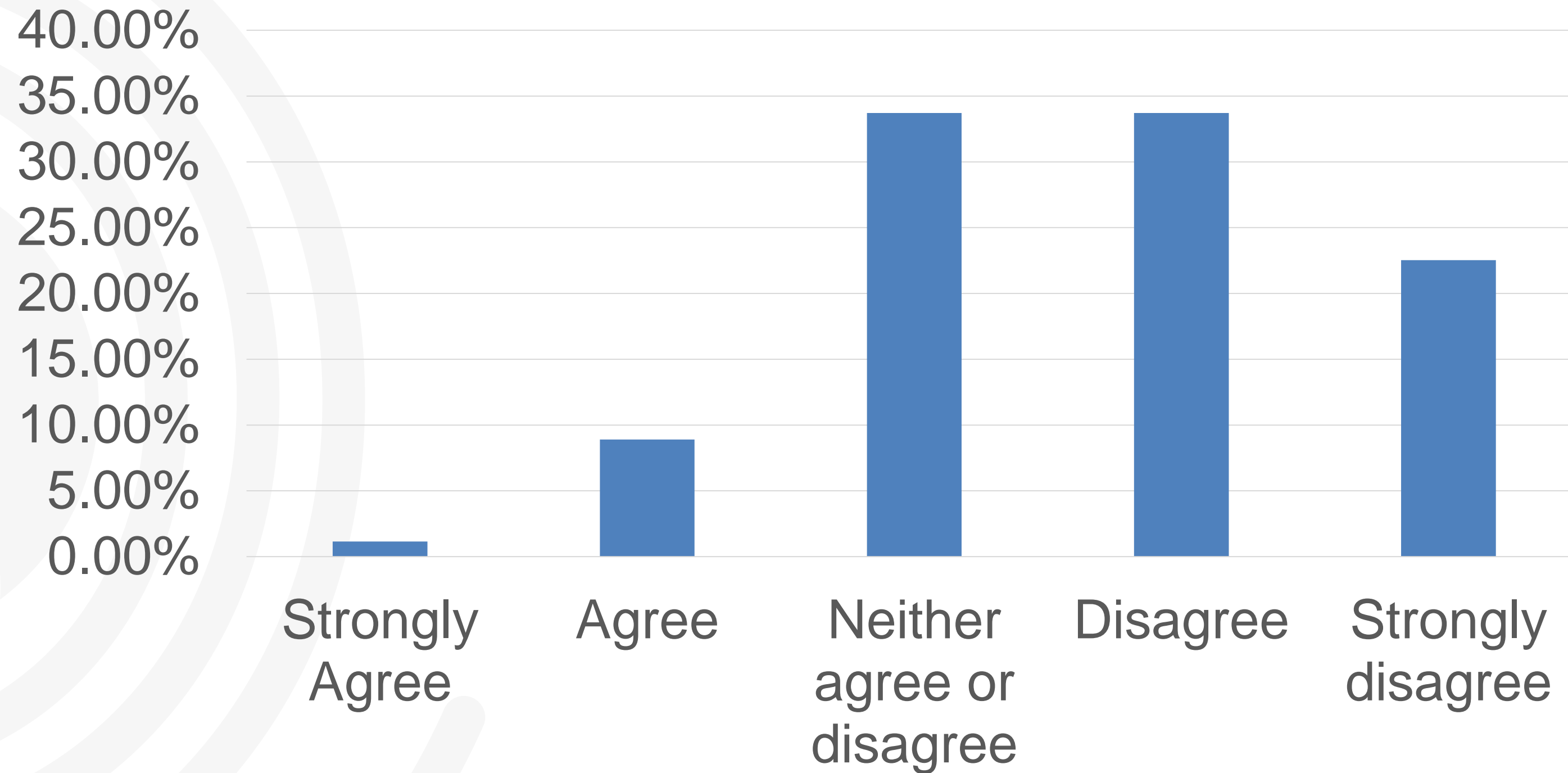


2018/2019  
(Pre  
COVID)



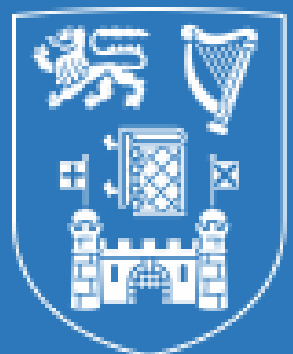
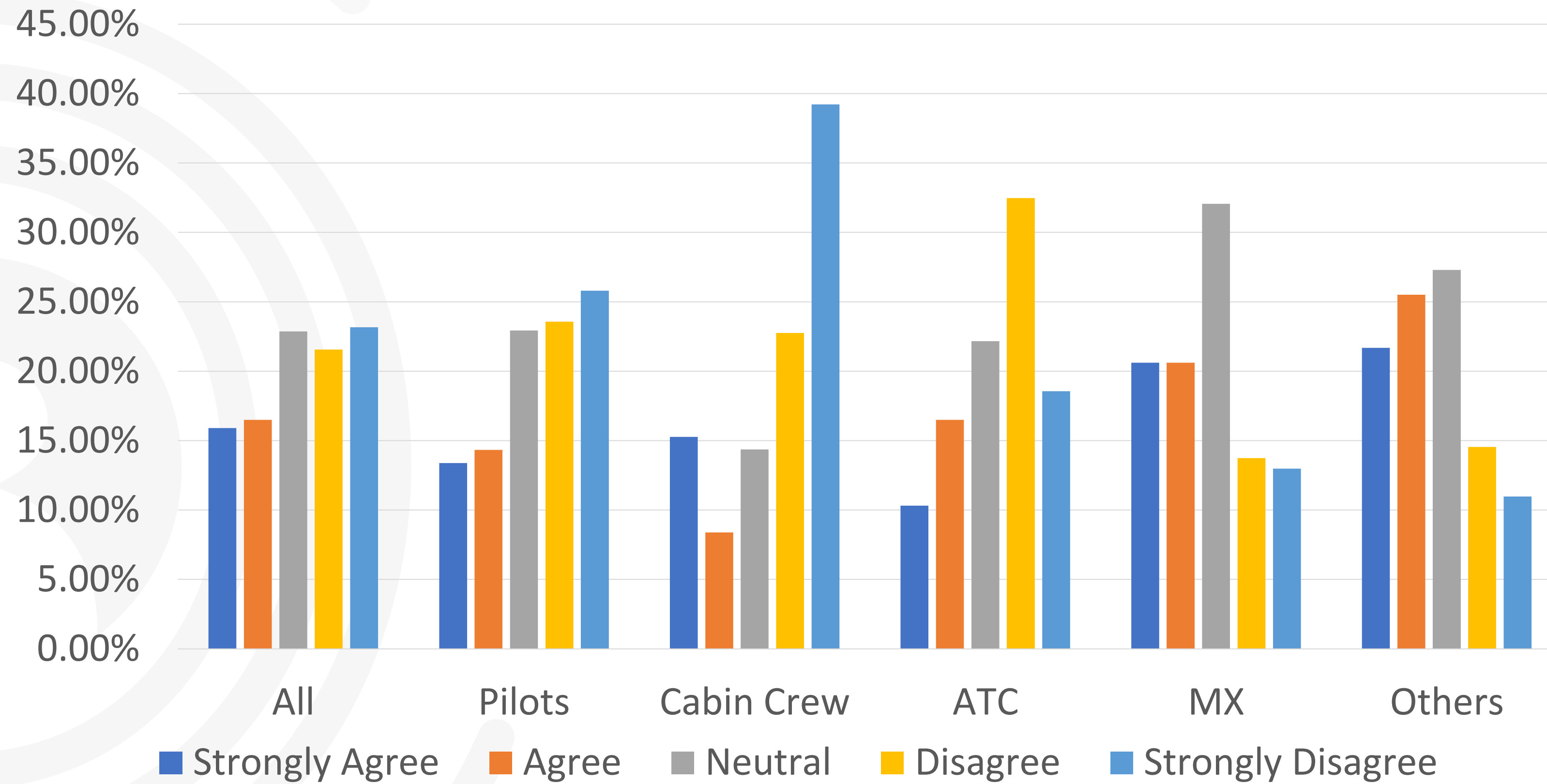
# The Safety Management practices at my airline adequately address issues concerning the support & management of Pilot mental health & wellbeing

2018/2019  
(Pre  
COVID)



# Supporting and maintaining positive mental health for aviation 'Safety-Critical Workers' during the COVID-19 pandemic is a key priority for my airline

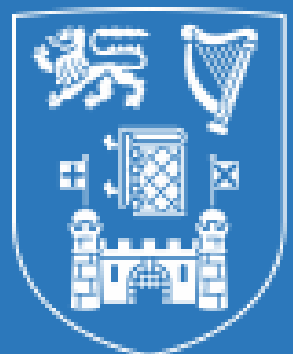
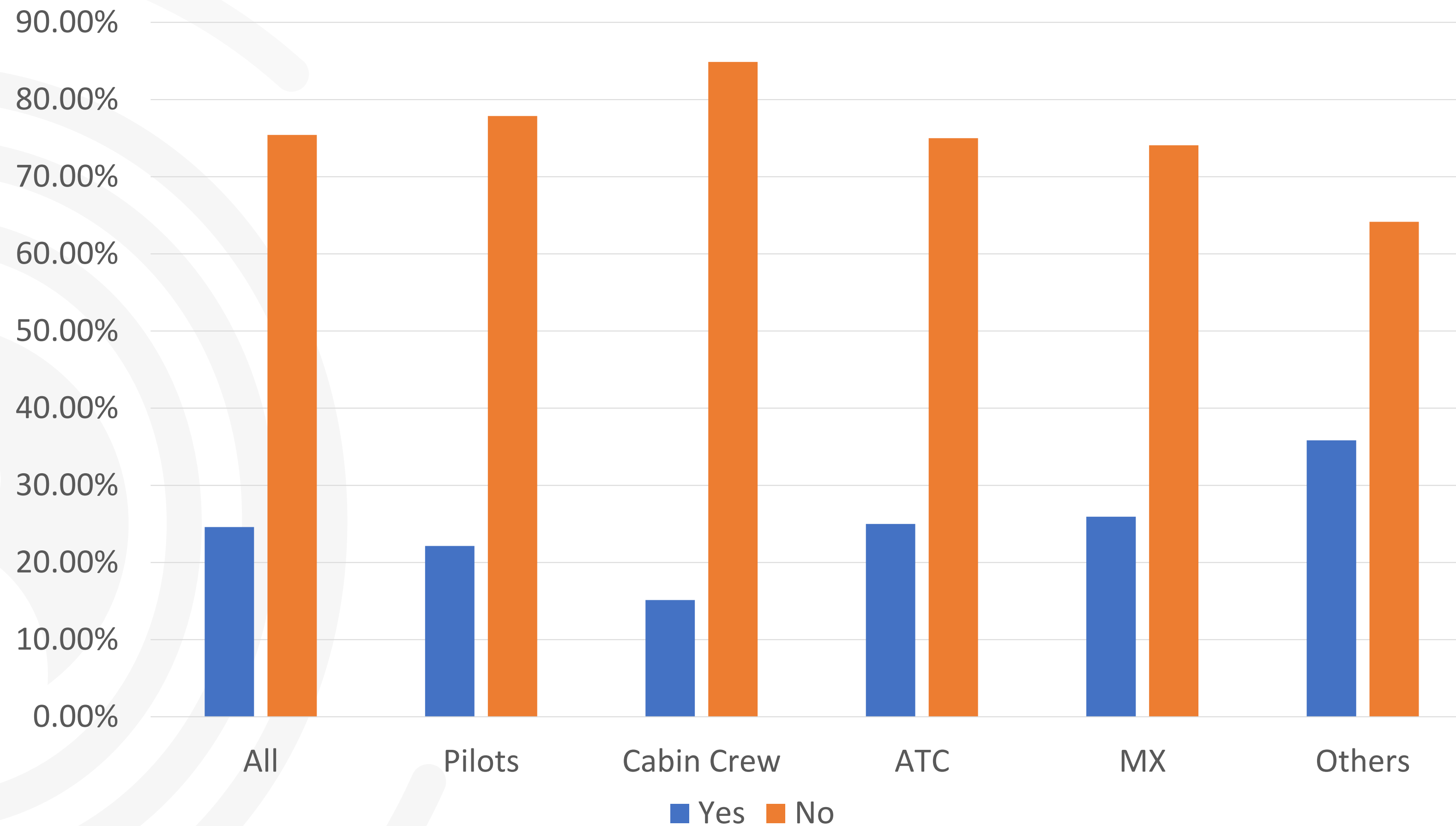
2020  
(COVID)





Has your company provided you with any specific support to cope with stresses arising from COVID and any changes to your wellbeing?

2020  
(COVID)

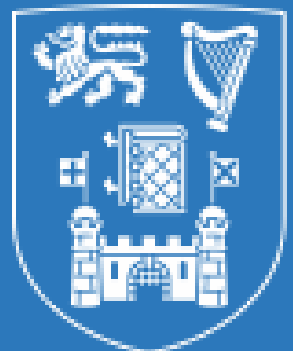
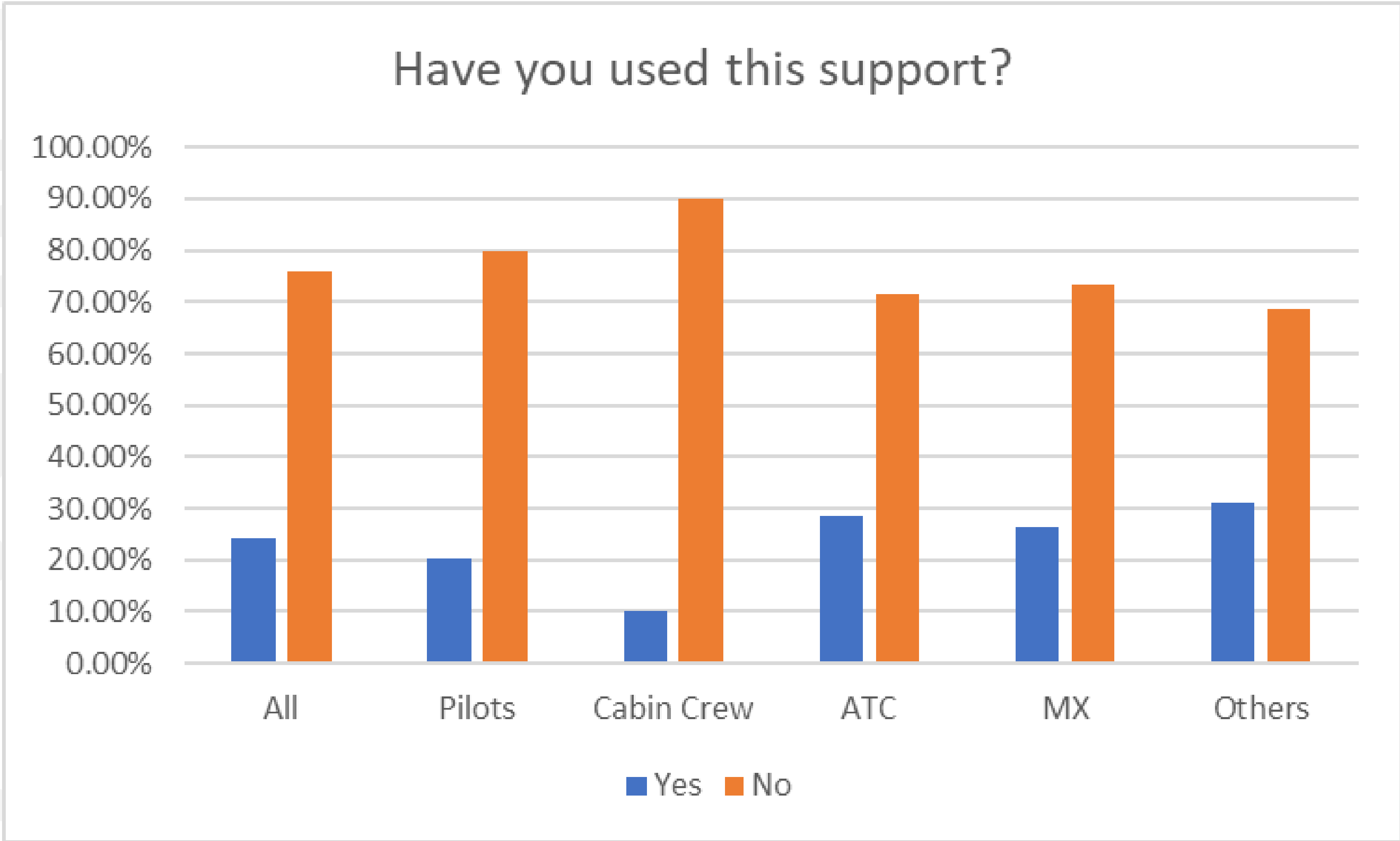


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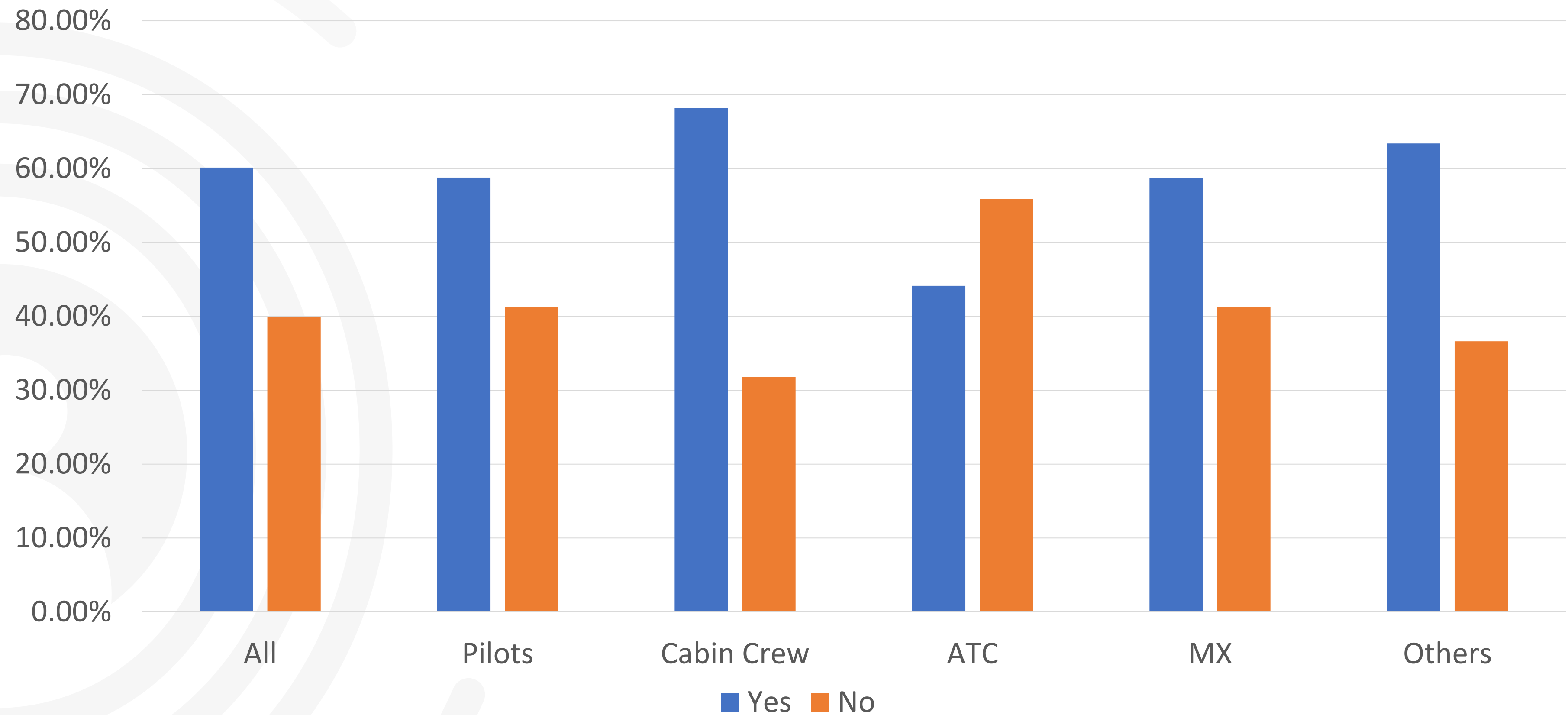


PEOPLE  
PROCESS  
PERFORMANCE

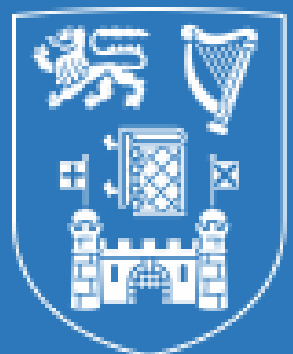
2020  
(COVID)



Although your company has not provided any support, would you use this if provided?



2020  
(COVID)



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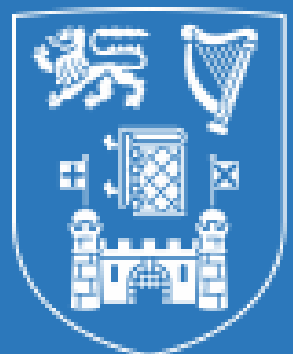
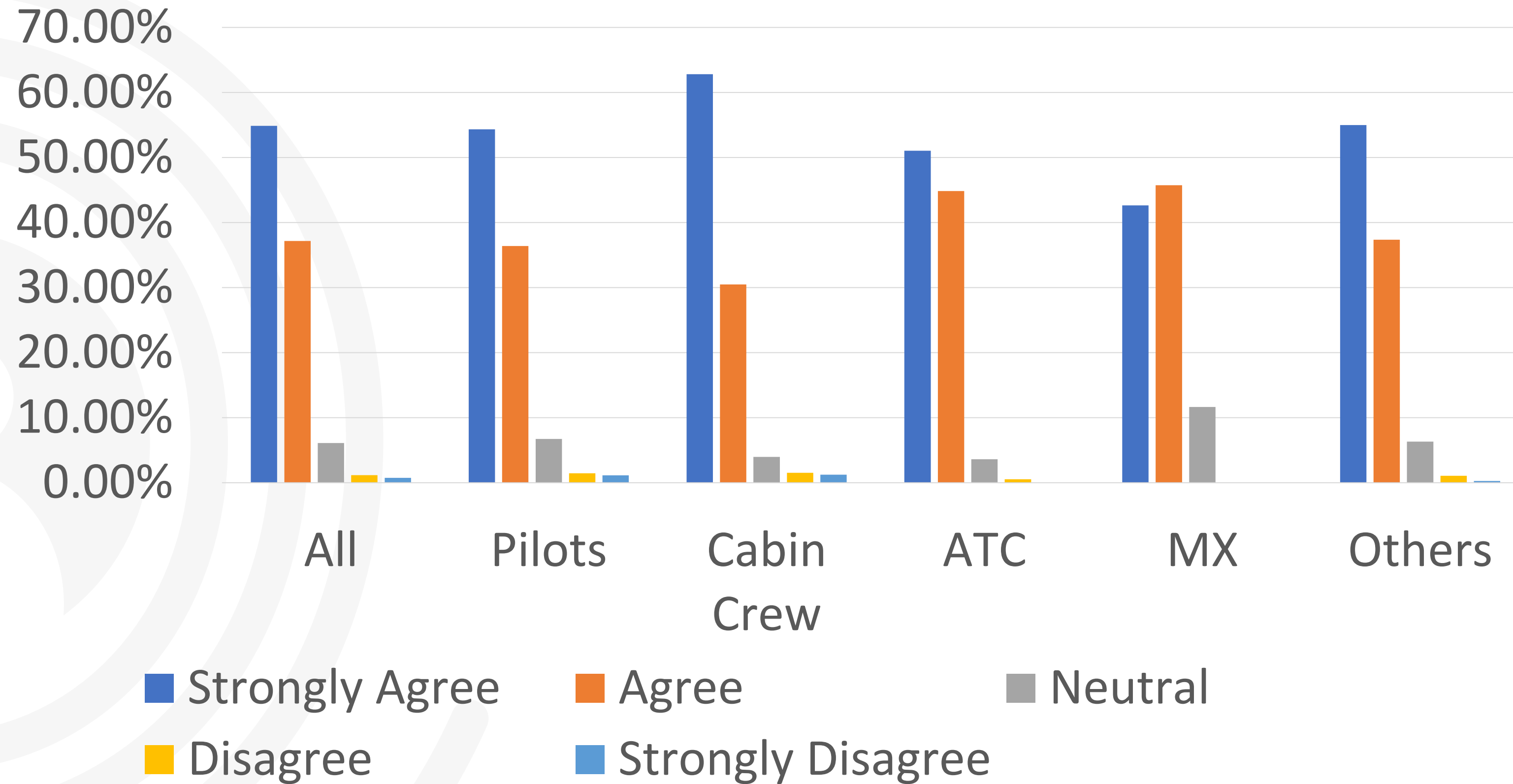


PEOPLE  
PROCESS  
PERFORMANCE



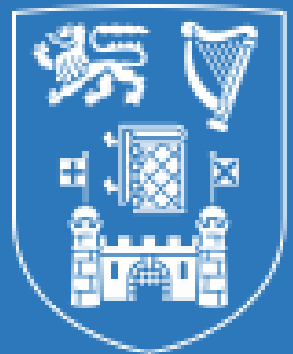
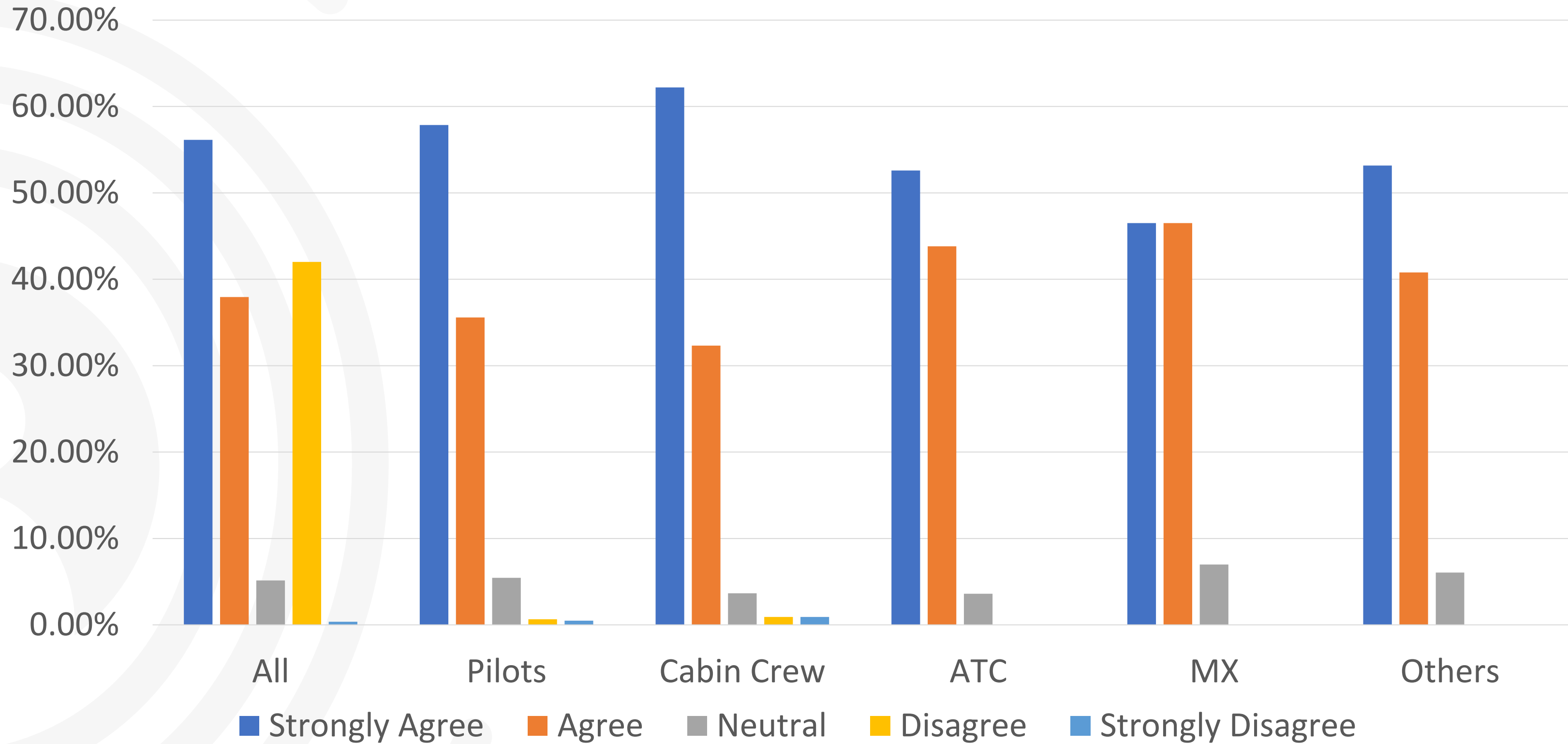
# Aviation workers who are currently working in "Safety-Critical" roles need support to maintain their wellbeing during the COVID-19 pandemic

2020  
(COVID)



Those 'Safety-Critical' aviation workers who are currently not working, need support to maintain their wellbeing now, so that they are fit to return to work post the COVID-19 pandemic

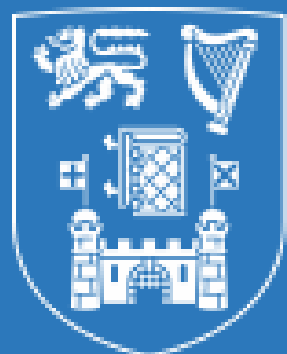
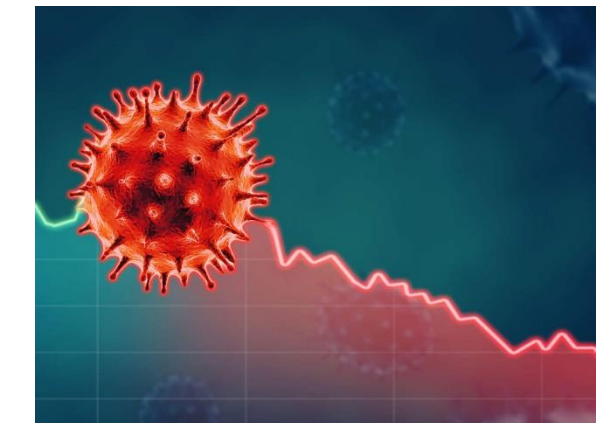
2020  
(COVID)



# Wellbeing Support Provided by Company (COVID)



1. In house company services/support
2. Outside services (paid for by company)
3. Signposted to services outside the company





# Examples of Wellbeing Support Provided by Company (COVID)

## 1: In house company services/support

- Online wellbeing seminars - power point presentation on wellbeing
- Access to online resources
- A phone call to check in with us
- Virtual coffee/meet up
- Newsletters on yoga and meditation
- Flexible working hours
- Temperature testing
- New COVID safety procedures
- The company distributed information about the Pilot Peer Support Programme

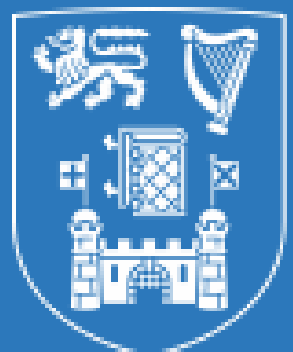
## 2: Outside Services (Paid for)

- Counselling with Psychologist
- Phone line counselling support
- Physical health support / GP/Medical Assistance

## 3: Referral Non Company Services

- Peer Assistance Network (PAN)
- Mindfulness apps

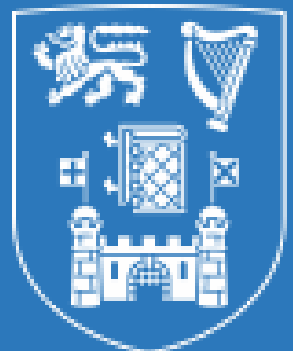
Focus on EAP, Peer Support & Training



# Examples of Support (COVID)



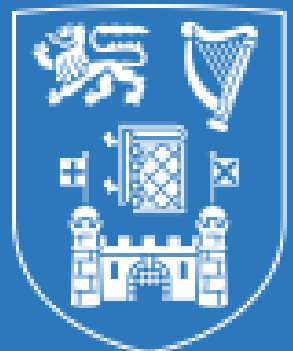
Wordcloud Frequency 10



# Examples of Support (COVID)



Wordcloud Frequency 20

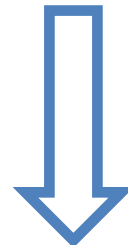




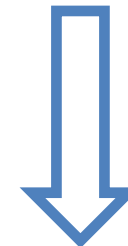
# 5. Problem Space, Stakeholders & Wellbeing Culture

- Org supports are provided – suitability/fit for purpose?
- Roles & responsibilities need consideration
- Wellbeing Culture?
- COVID Context & Need for Support

Defining/understanding the problem



Identifying and testing solutions



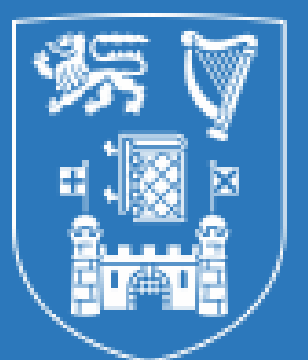
Choosing and implementing a solution

Need other solutions/ change existing approach...

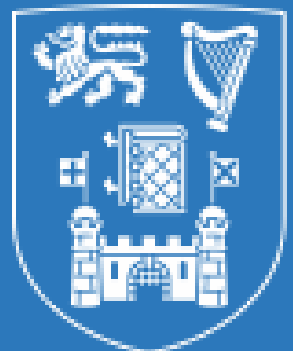
**Culture, Values & Leadership?**

**Need to embed wellbeing**

- Training
- Occupational health and support
- Safety/Risk
- Flight Planning/Rostering



# Peer Support

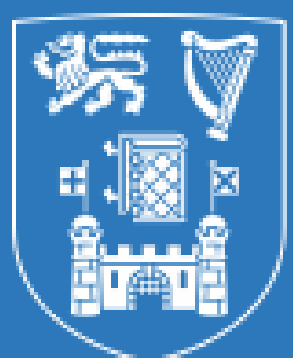
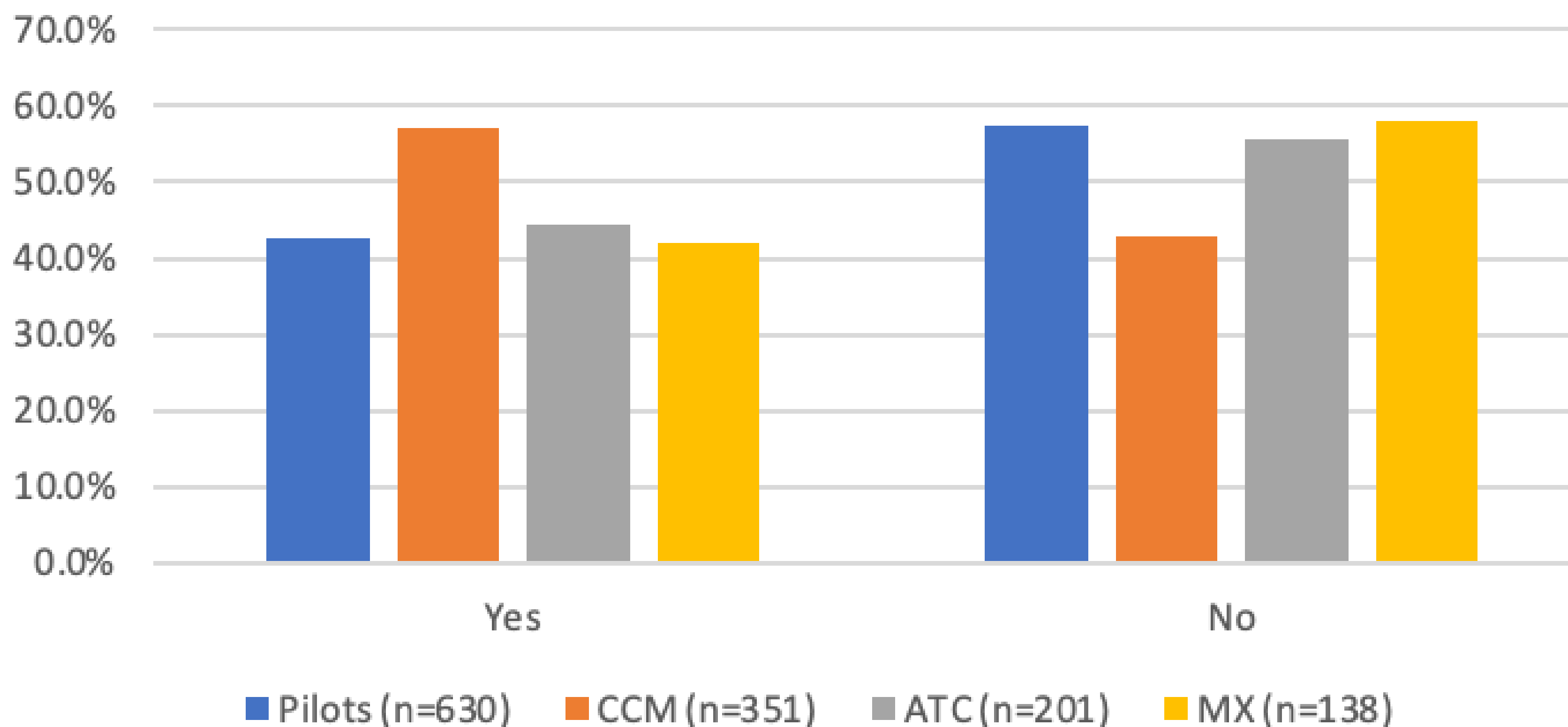


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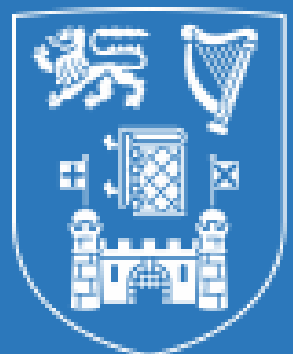
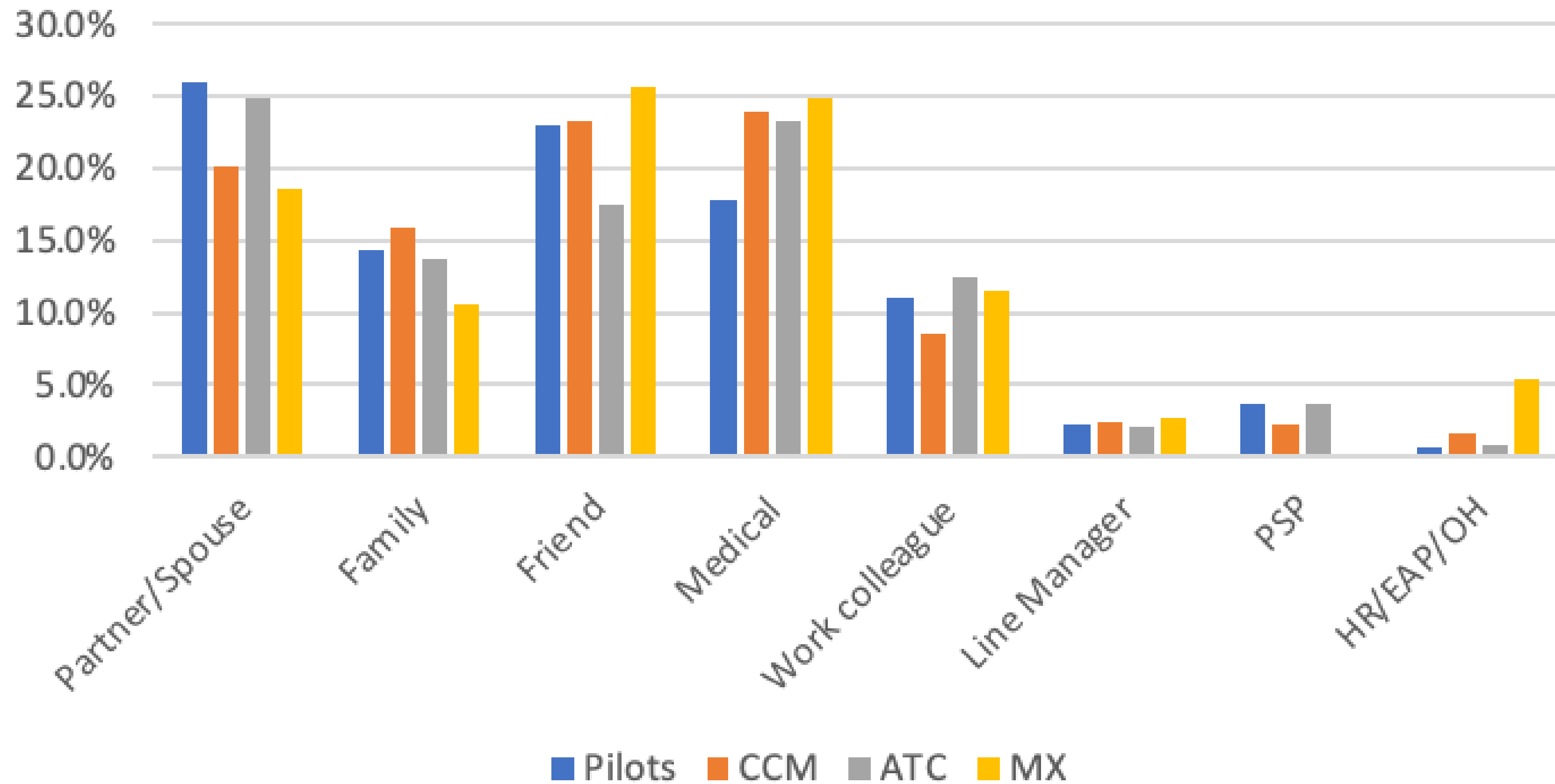
PEOPLE  
PROCESS  
PERFORMANCE

## Have you ever spoken to someone about a MH issue you are experiencing or have experienced?

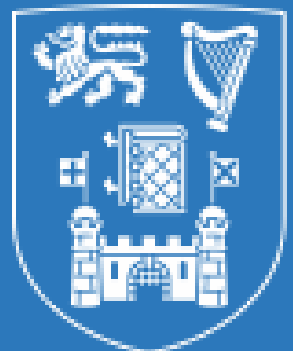
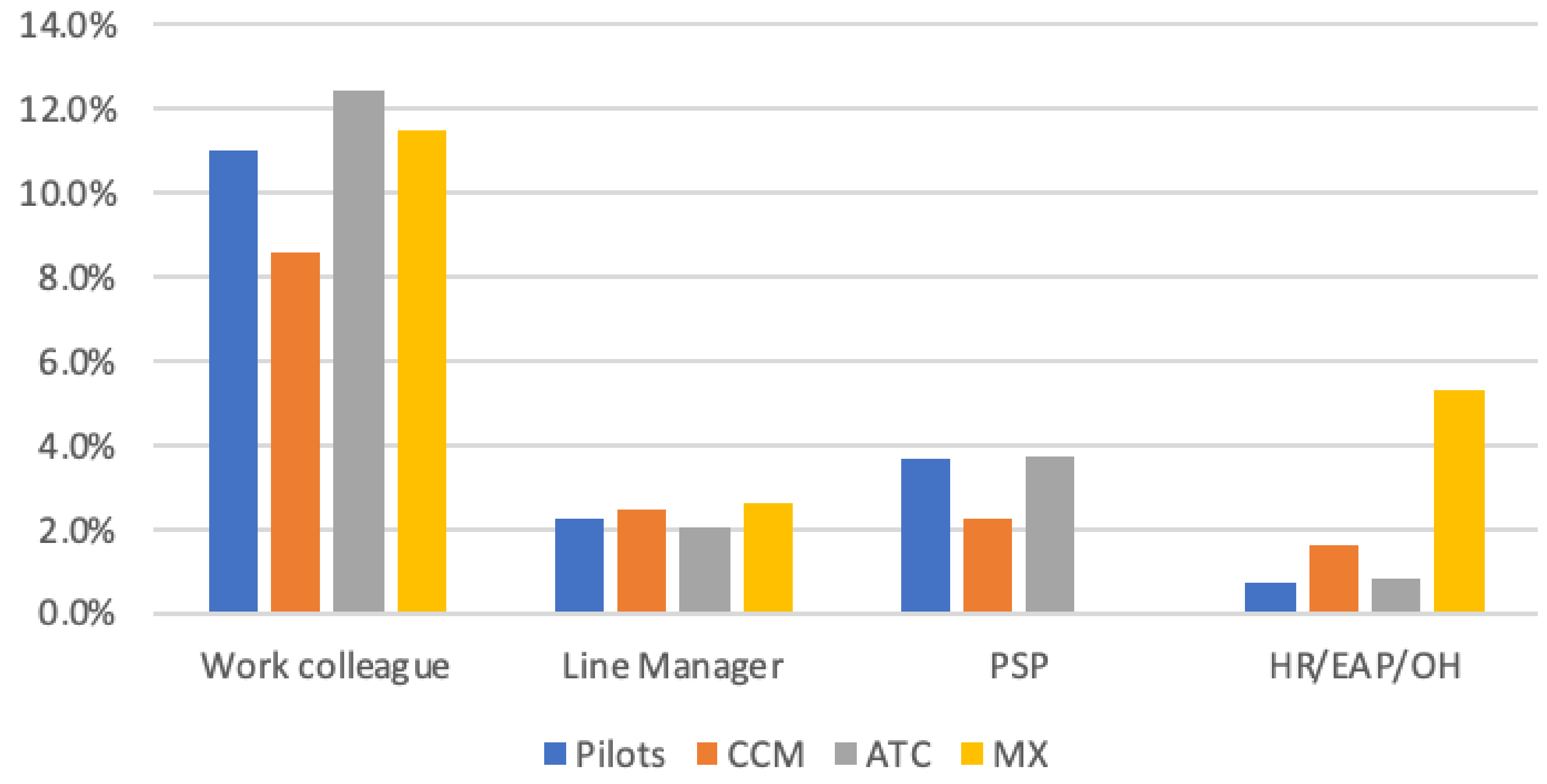




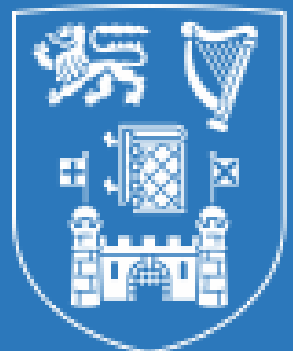
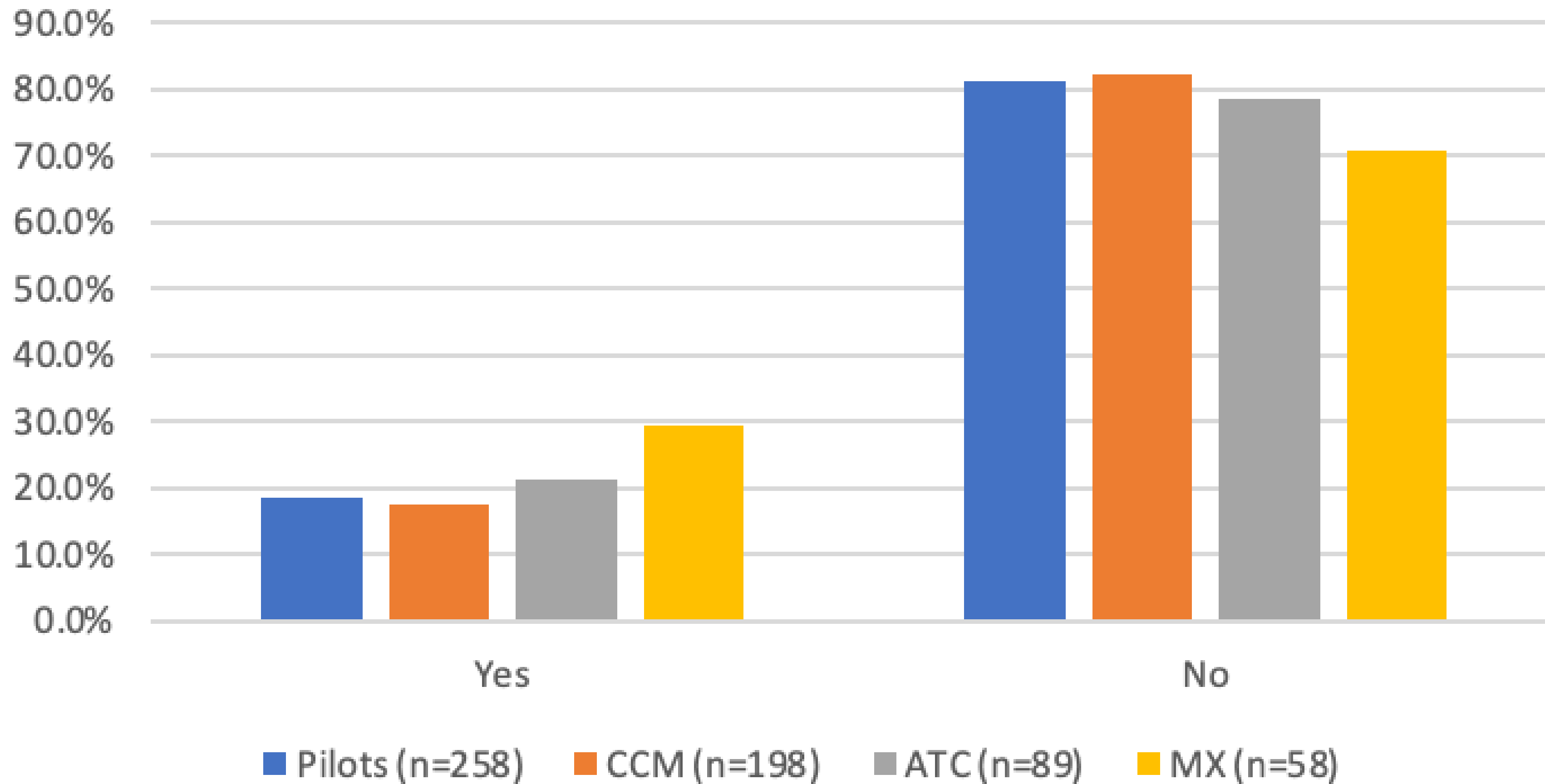
## Who did you speak to?



# Who did you speak to?

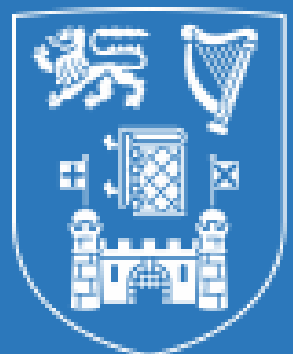
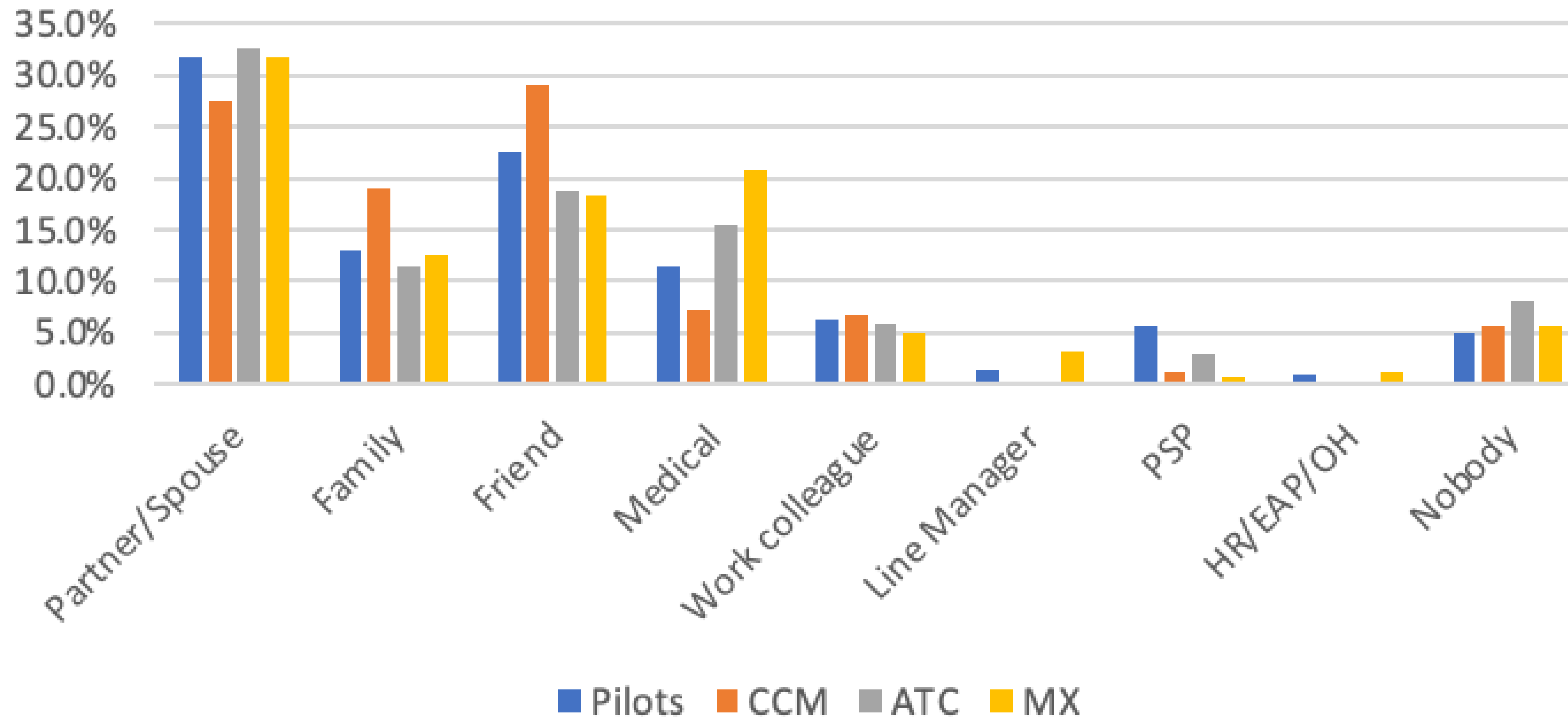


## Did you willingly disclose it to your employer?

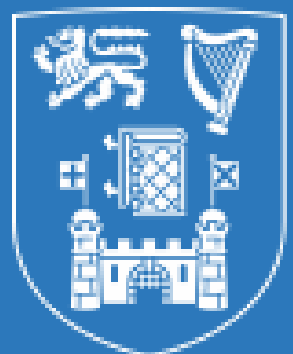
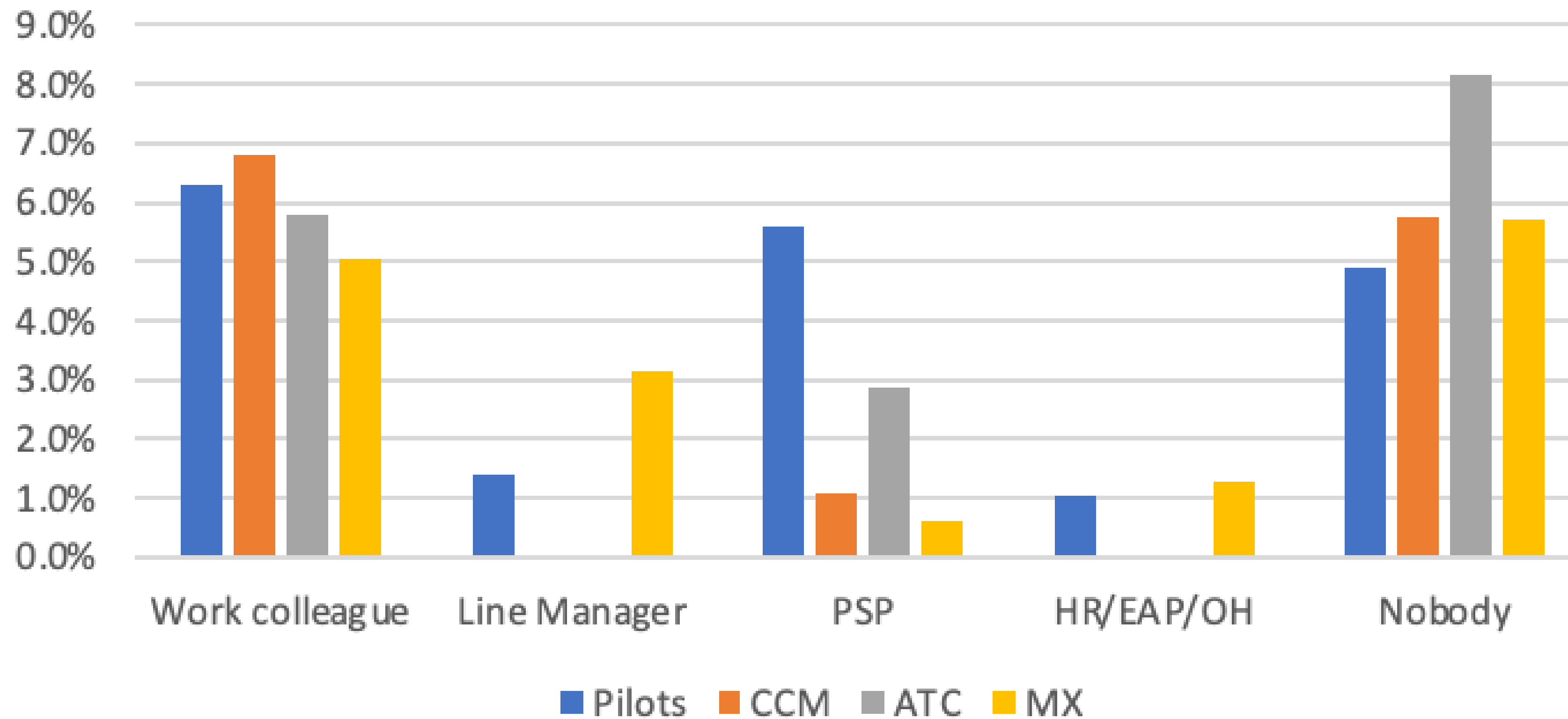




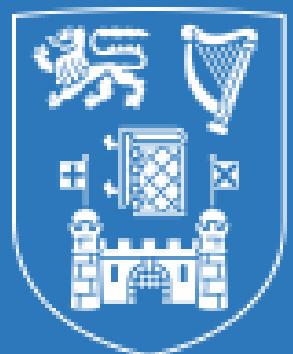
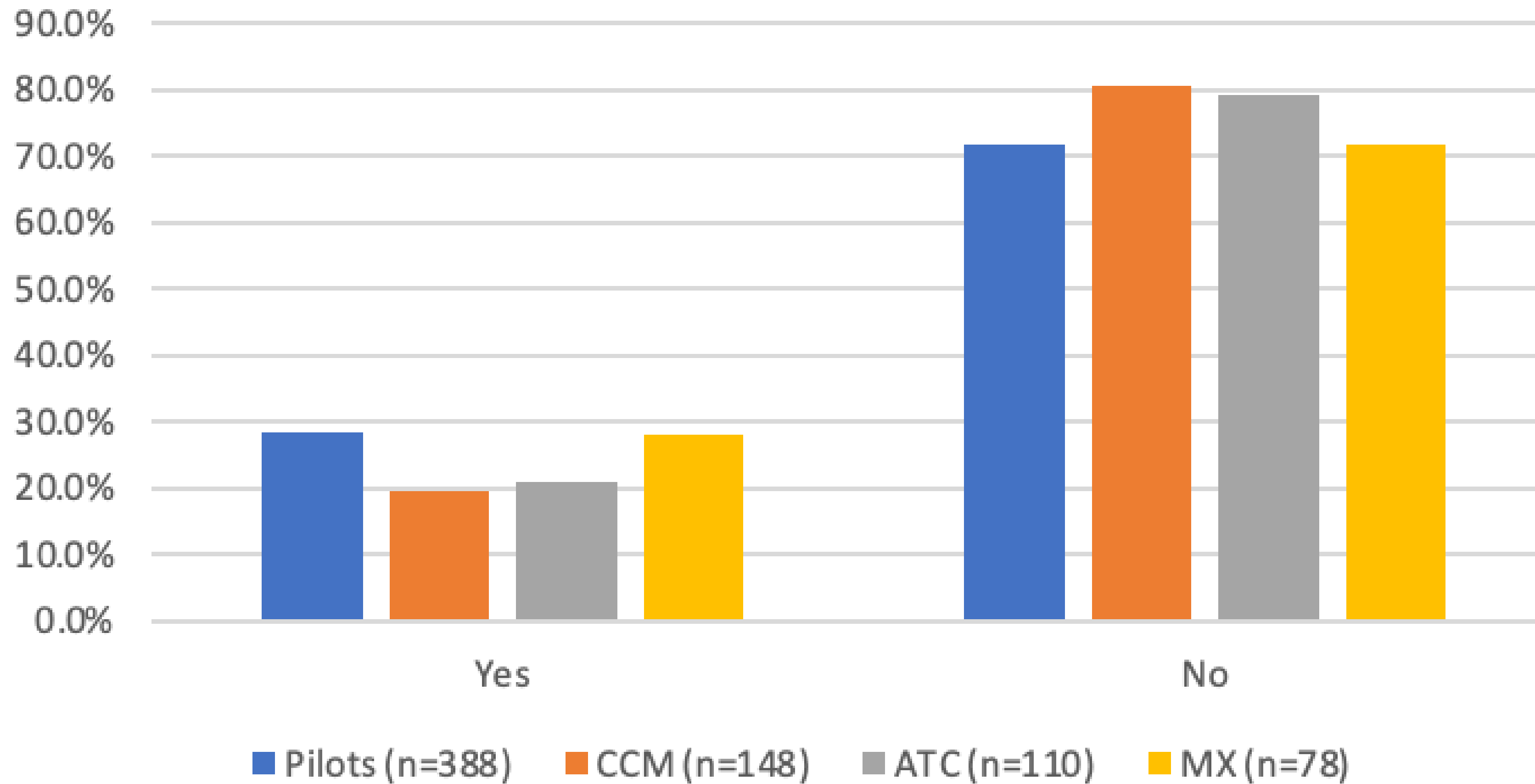
## If you were feeling anxious or depressed, who would you talk to?



## If you were feeling anxious or depressed, who would you talk to?

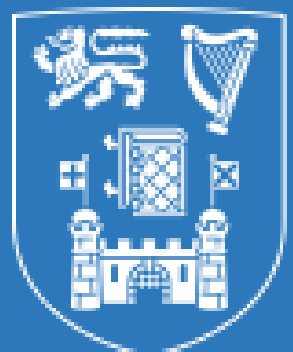
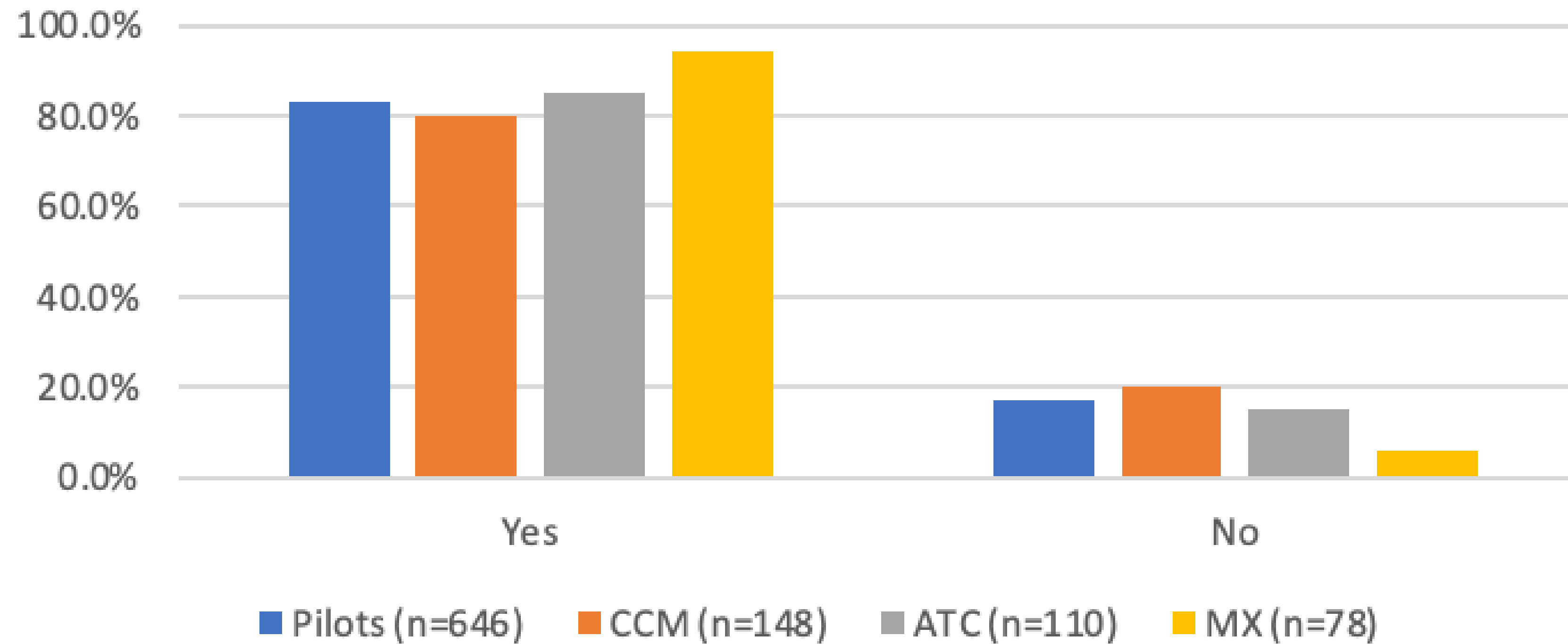


## Would you disclose it to your employer?

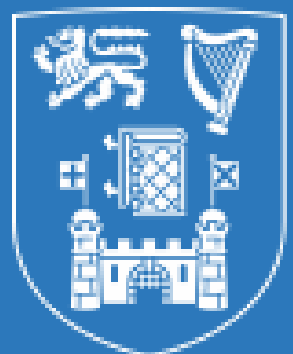
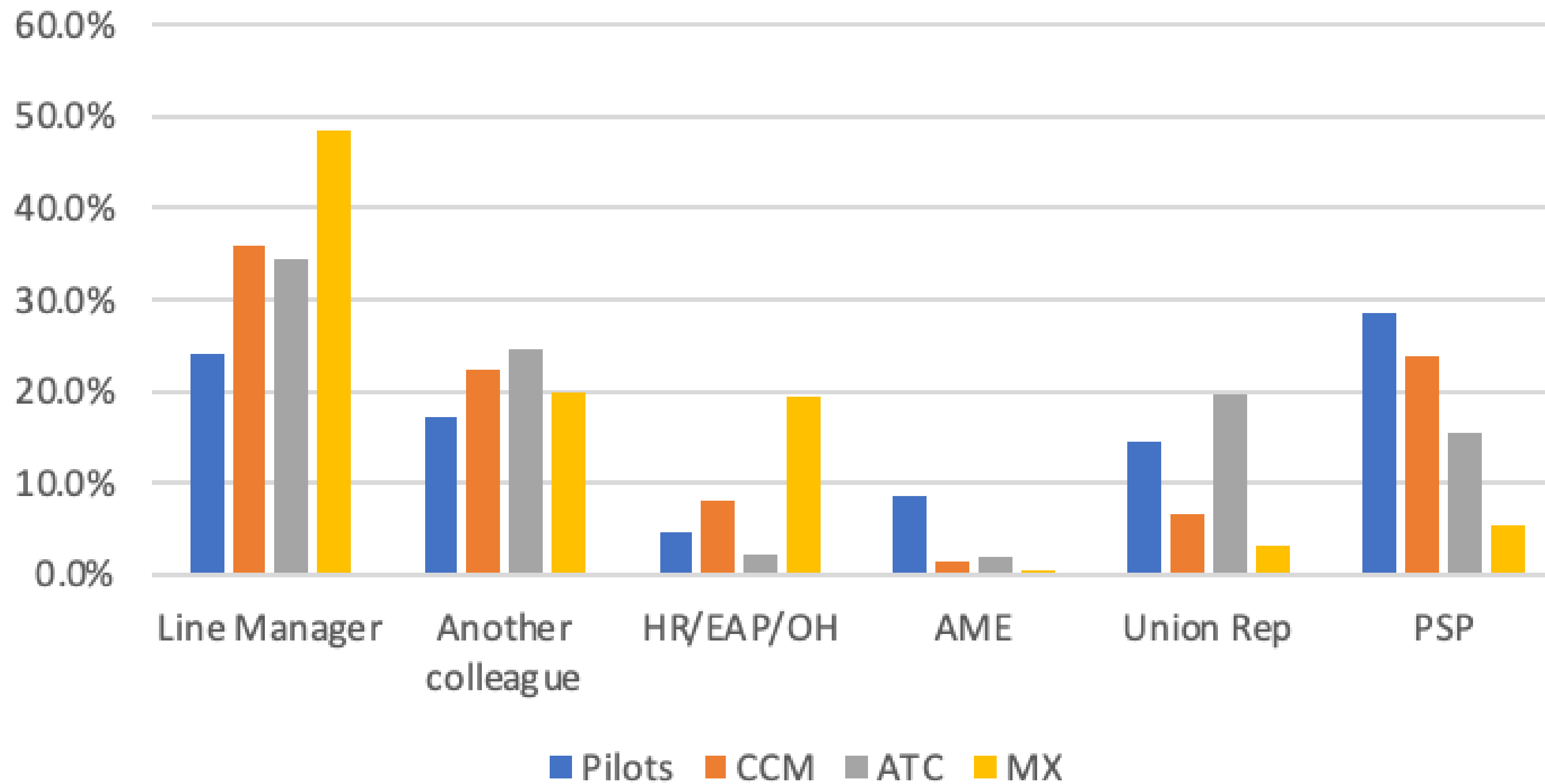




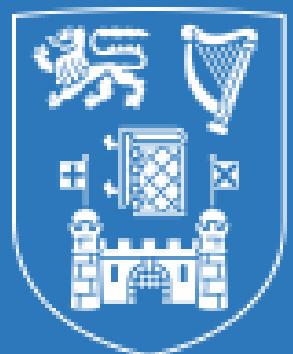
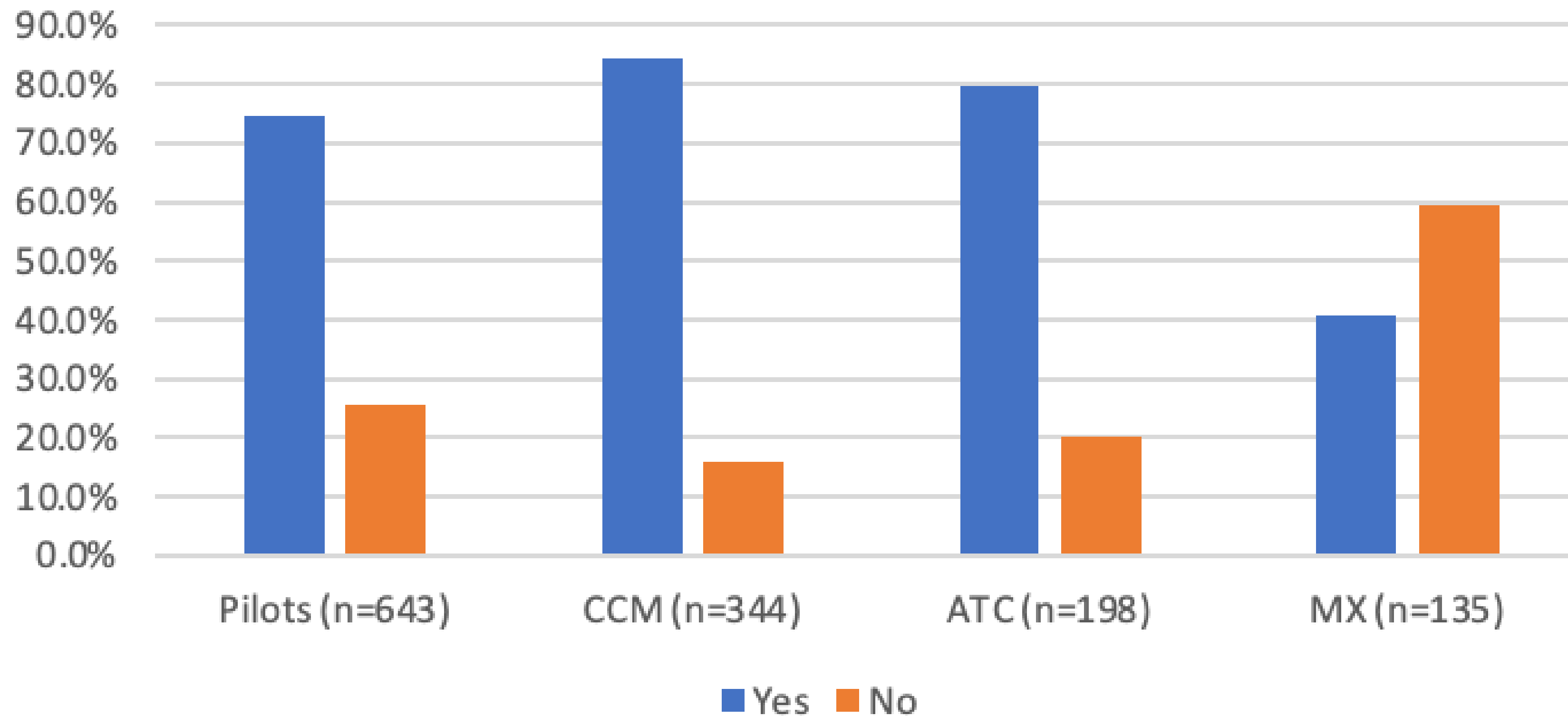
## If you thought a work colleague had a serious mental health issue and might present a safety risk, would you report it?



## Who would you raise your concern with?

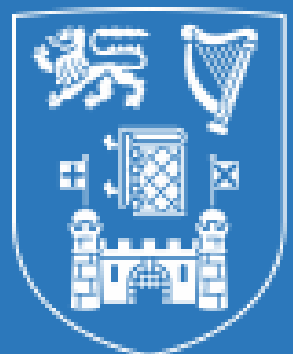
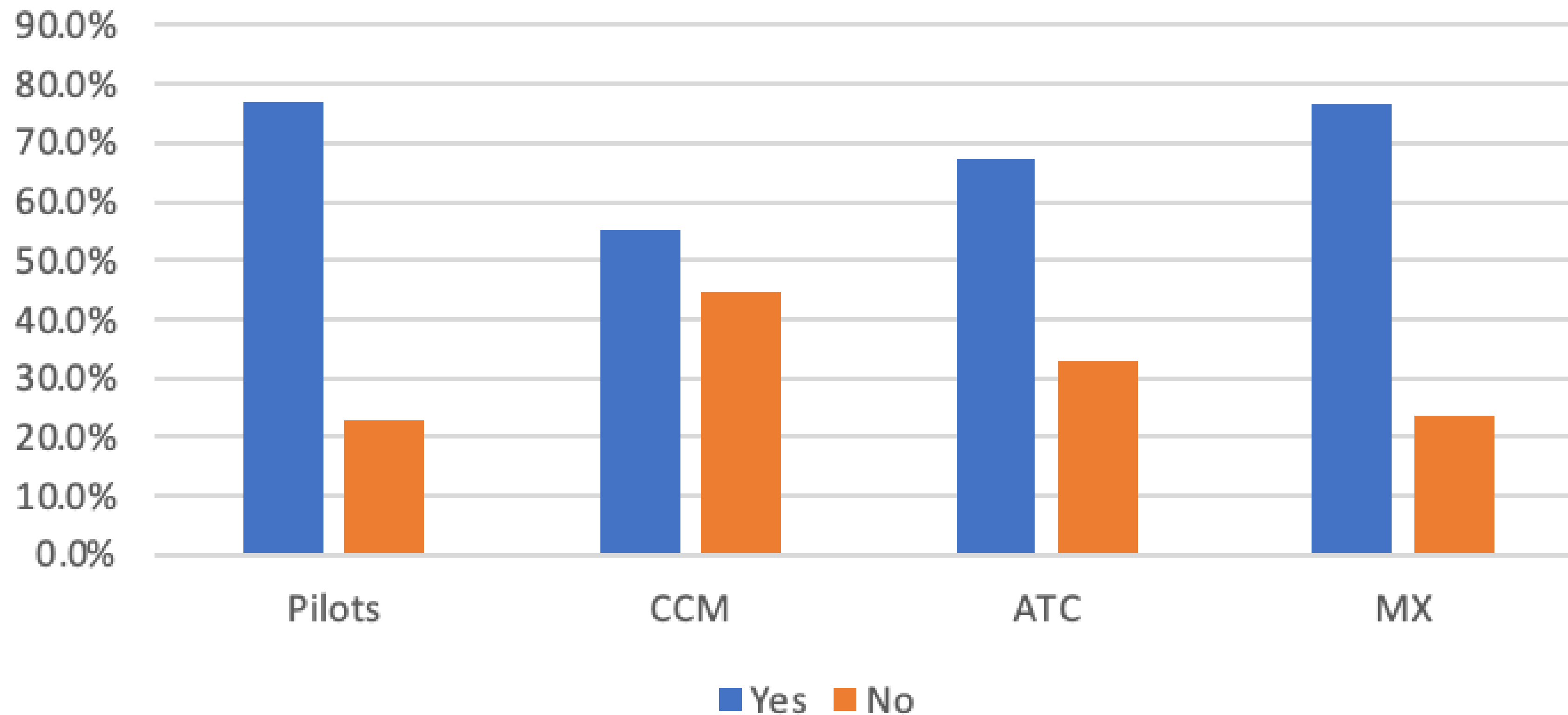


## Are you aware of the existence of a PSP within your organisation or staff representative group?

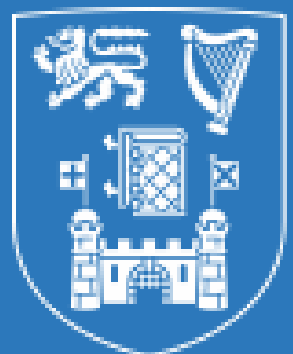
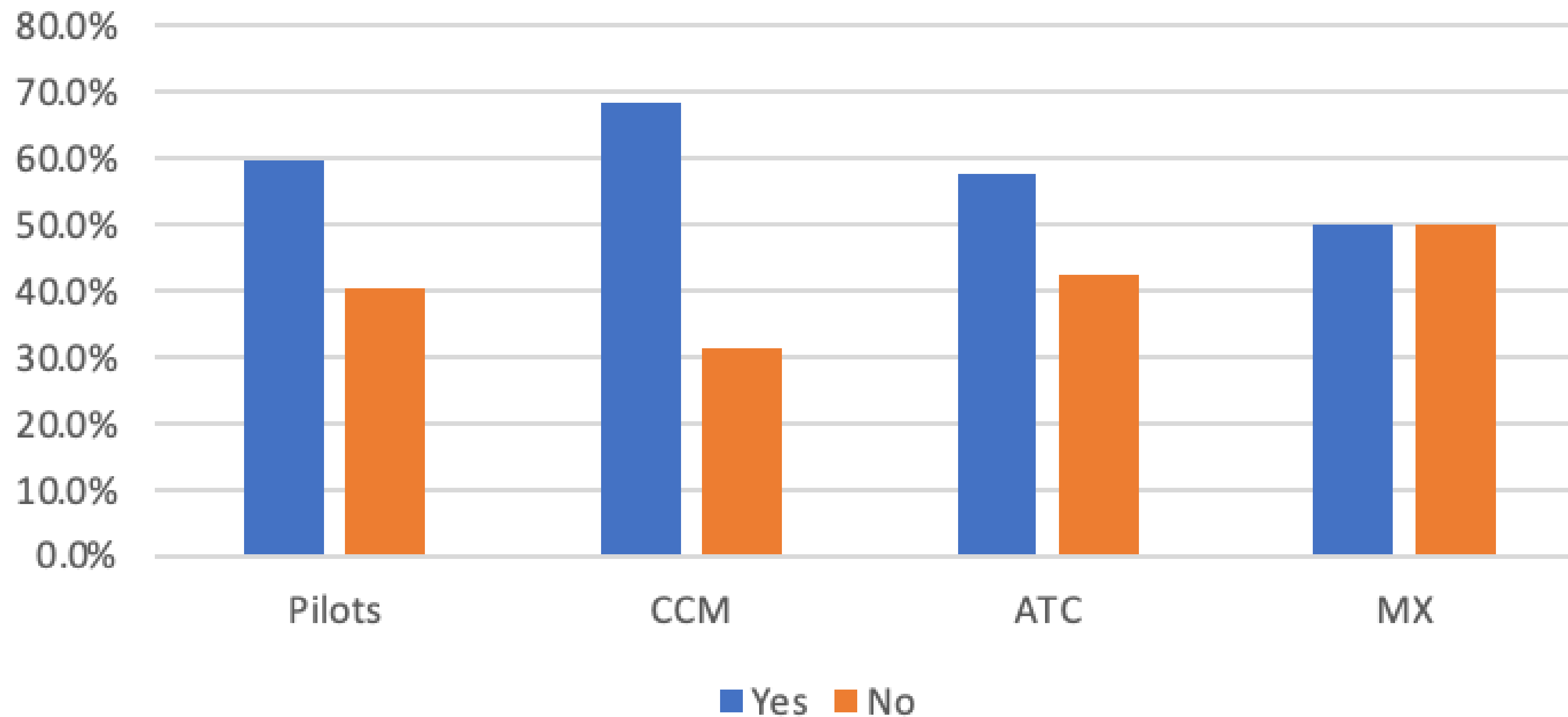




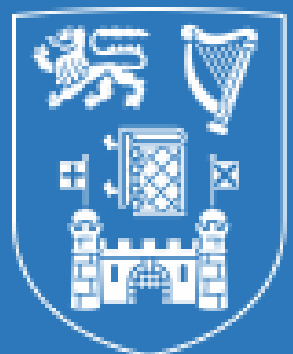
## If needed, would you approach the PSP for peer support services?



## If a PSP was in place and if needed, would you approach it for peer support services?



# 7. Stress Coping & Resilience



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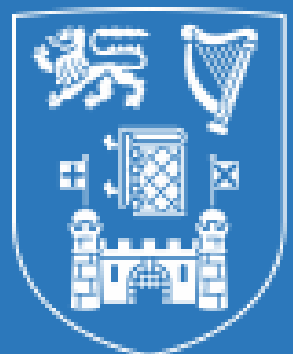


PEOPLE  
PROCESS  
PERFORMANCE



# Stress Coping & Self Management

- People vary in relation to their ability to cope successfully with stress (including WRS)
- **The practice of healthy behaviours strengthens the person's resistance to stress**
- Substitution of maladaptive coping with more adaptive coping
- Common stress coping strategies include exercise, the practice or relaxation techniques and seeking social support and/or social participation.
- **Resilience**



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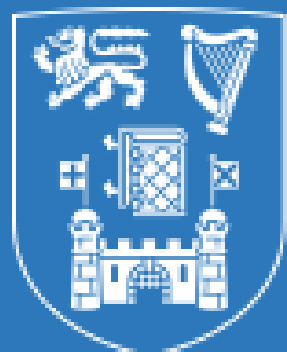
<https://www.tcd.ie/cihs/projects/pilot-lived.php>



PEOPLE  
PROCESS  
PERFORMANCE

# 7. Stress Coping & Resilience

#	When	Group	Method/What
1	2015 to 2016	Pilots (N= 103)	Informal Interviews
2	<b>2018</b>	<b>Pilots (N=33)</b>	<b>Workshops</b>
3	<b>2018/2019</b>	<b>Pilots (N= 1,059)</b>	<b>Wellbeing Survey</b>
4	<b>2019/2020</b>	<b>Aviation stakeholders (N=15)</b>	<b>Workshops/Interviews</b>
5	<b>August 2020</b>	<b>All aviation workers (N=2050)</b>	<b>COVID Survey</b>



# 7. Stress Coping & Resilience

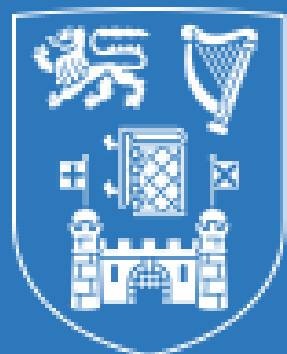
3 Wellbeing Survey 2018/2019

5 COVID Survey 2020

Coping With the Job & Managing the Home/Work Interface

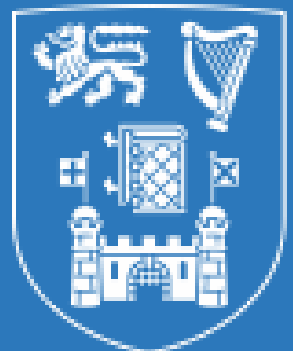
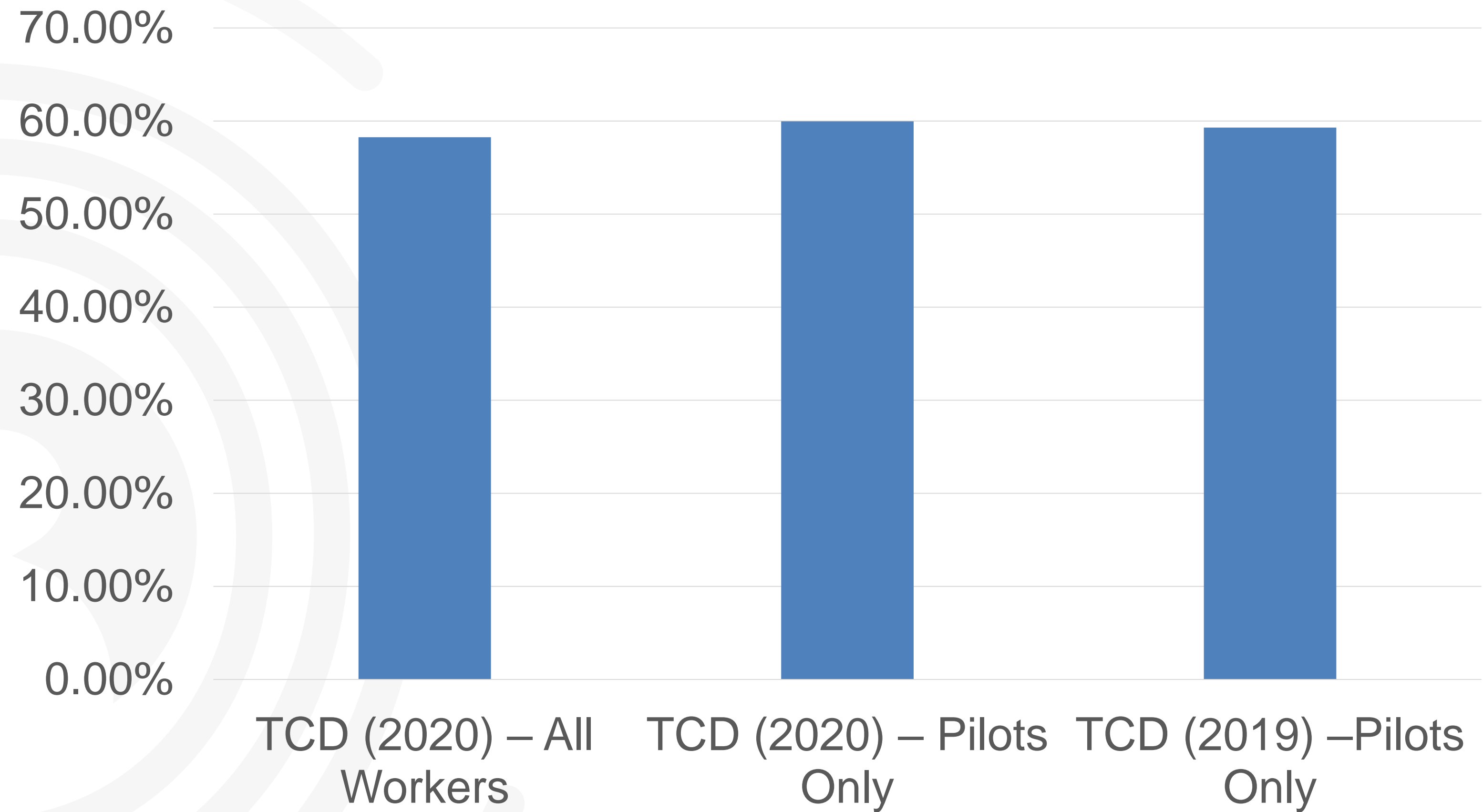


Coping with the stress and anxiety of the COVID-19 Pandemic  
(1) in work, (2) lost job/off work, (3) returning to work

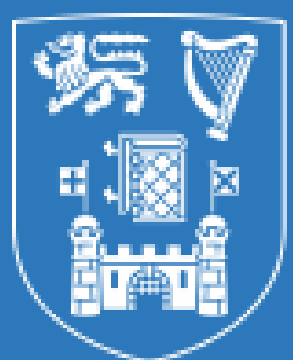
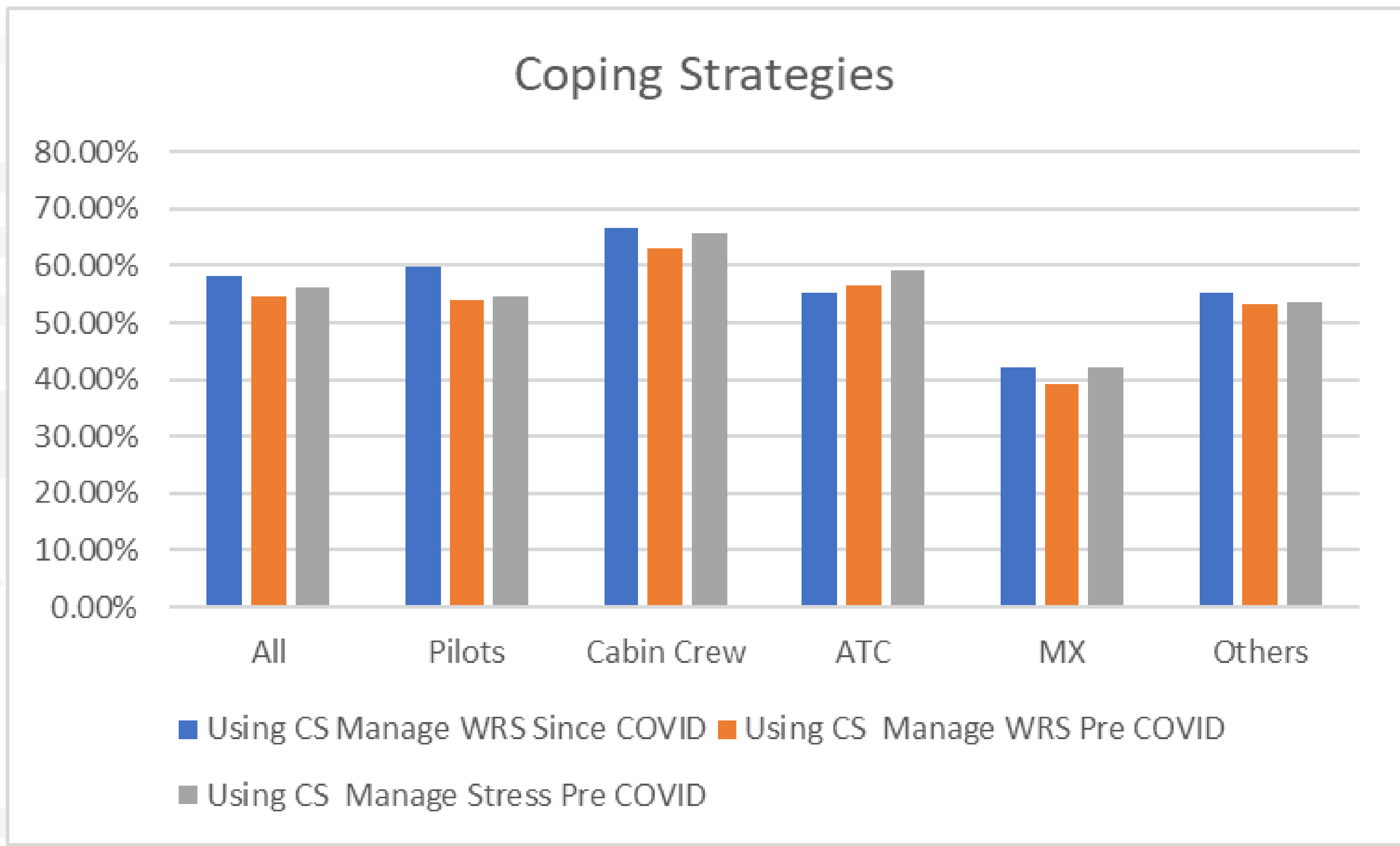




## Using CS Manage WRS



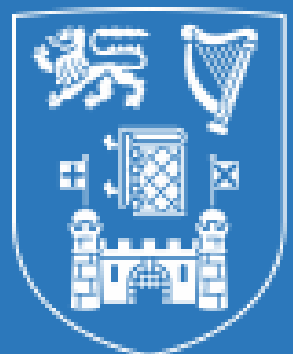
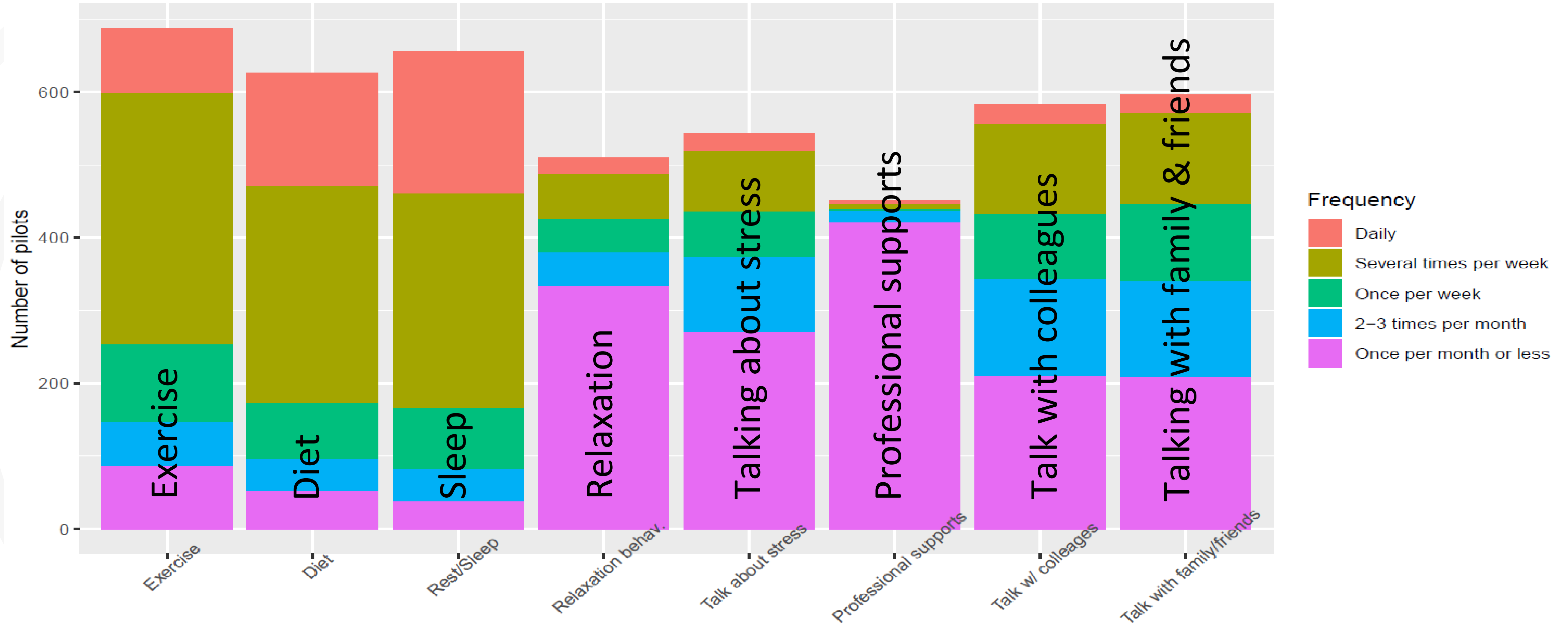
2020  
(COVID)





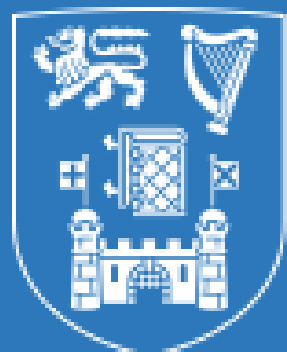


# Pilot Lived Experience Survey & Stress Coping (2018/2019)



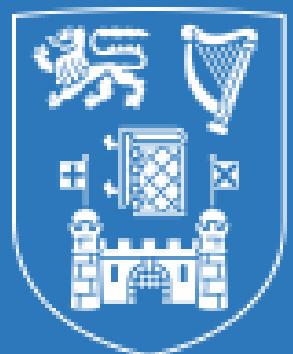
# Adaptive & Maladaptive Coping (Survey, 2018/2019)

Adaptive		Maladaptive
Try to do things I enjoy (eating out, watch TV, hobbies, nature/outdoors etc.)	Taking time off work	Avoidance/Ignore
Socialise/spending time with family & friends	Taking 'me time'	Smoking
Take exercise/sport	Keeping journal	Substance misuse - alcohol
Manage my diet and nutrition	Positive thinking	Substance misuse - drugs
Focus on sleep & rest	Using mobile apps	Temper/lash out/aggressive behaviour
Use specific relaxation-focus behaviour (e.g. yoga, meditation, massage etc.)	Use Computer Based Tools (as part of a clinical support programme)	Self-harm
Talk about my stress	Intimacy/sexual activity	Withdraw from people
Read books about stress management	Prayer/spirituality	Disordered eating
Use professional/organised supports	Keep busy	Screaming/throwing things/tantrums
Holidays	Volunteering	Crying
Moving to Part/Time working arrangements	Be prepared for work	



# Adaptive & Maladaptive Coping (Survey, 2018/2019)

- *Have a life outside flying.*
- *Being outdoors for even just a short walk, even in winter/bad weather and on short layovers*
- *Try to read books on staying positive. And I day dream about winning the lottery so I can quit being a pilot.*
- *Sleep more. Go back to bed after school run*
- *At my home you will not find anything aviation-related. Not reading anything about my company during off time.*
- *Creating connection with colleagues by personally offering emotional health courses*
- *Deep breathing, positive self talk.*
- *Cigarettes, sex*
- *Bitch*



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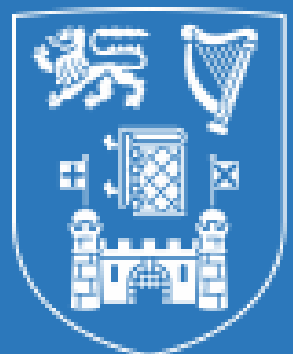
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PROCESS  
PERFORMANCE

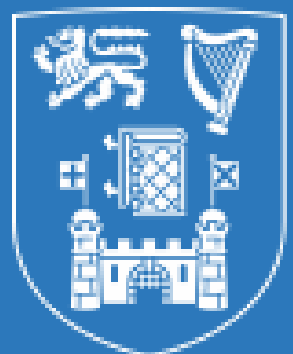


# Pilot Lived Experience Survey & Stress Coping (2018/2019)



# Pilot Lived Experience Survey & Stress Coping (2018/2019)

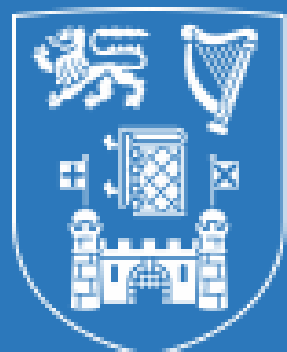
alcohol (8) avoid (4) away (8) better (4) books (6)  
breathing (7) change (4) comedy (3) company (5)  
completely (4) current (3) days (3) dog (4) drink (5) eating (4) and (3)  
enjoy (6) etc (3) exercise (8) feel (5) focus (4) games (3)  
going (3) help (4) hobbies (5) job (4) keep (5) life (6)  
listening (12) management (5)  
meditation (8) mindfulness (8)  
music (16) occasional (3) organising (3) outside (3) partner (3)  
personal (3) phone (3) pilot (4) play (6) positive (12)  
prepared (3) problems (7) rather (3) reading (13)  
self (4) short (3) sleep (4) smoke (3) social (3) something (3) spend (4) sport (3)  
stay (7) stop (3) stress (8) support (3) switch (3) taking (4)  
talking (5) techniques (3) things (9)  
thinking (13) video (3) walking (8) watch (5)  
work (15) years (2) yoga (3)





# Pilot Lived Experience Survey & Stress Coping (2018/2019)

alcohol (8) away (6) books (6) breathing (7) company (5) drink (5)  
enjoy (6) exercise (6) feel (5) hobbies (5) keep (5) life (6)  
listening (12) management (5) meditation (9)  
mindfulness (8) music (16) play (8)  
positive (12) problems (7) reading (13)  
stay (7) stress (8) talking (5) things (9)  
thinking (13) walking (8) watch (5)  
work (15)





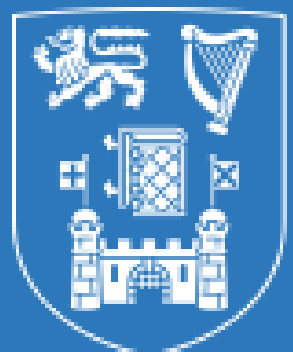
# Coping Strategies & Depression Severity

**The 3 coping strategies associated with odds of having a higher depression severity level are:**

1. Discussing WRS with colleagues 2-3 times a month
2. Focusing on relaxation behaviour once a week
3. Focusing on relaxation behaviour several times a week

**The coping strategies most associated with lower depression severity levels are**

1. Focussing on sleep daily
2. Focussing on exercise several times a week
3. Focussing on exercise daily
4. Focussing on exercise 2 to 3 times a month



# COVID Situation & Need for Resilience

Pre COVID-19, pilots experiencing WRS and wellbeing challenges

## COVID: OPERATIONAL SCENARIOS (FSF)

1: In work

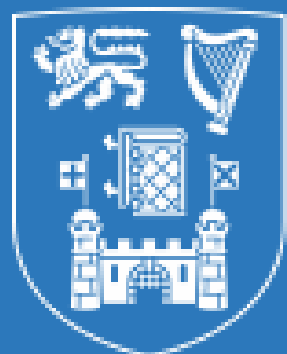
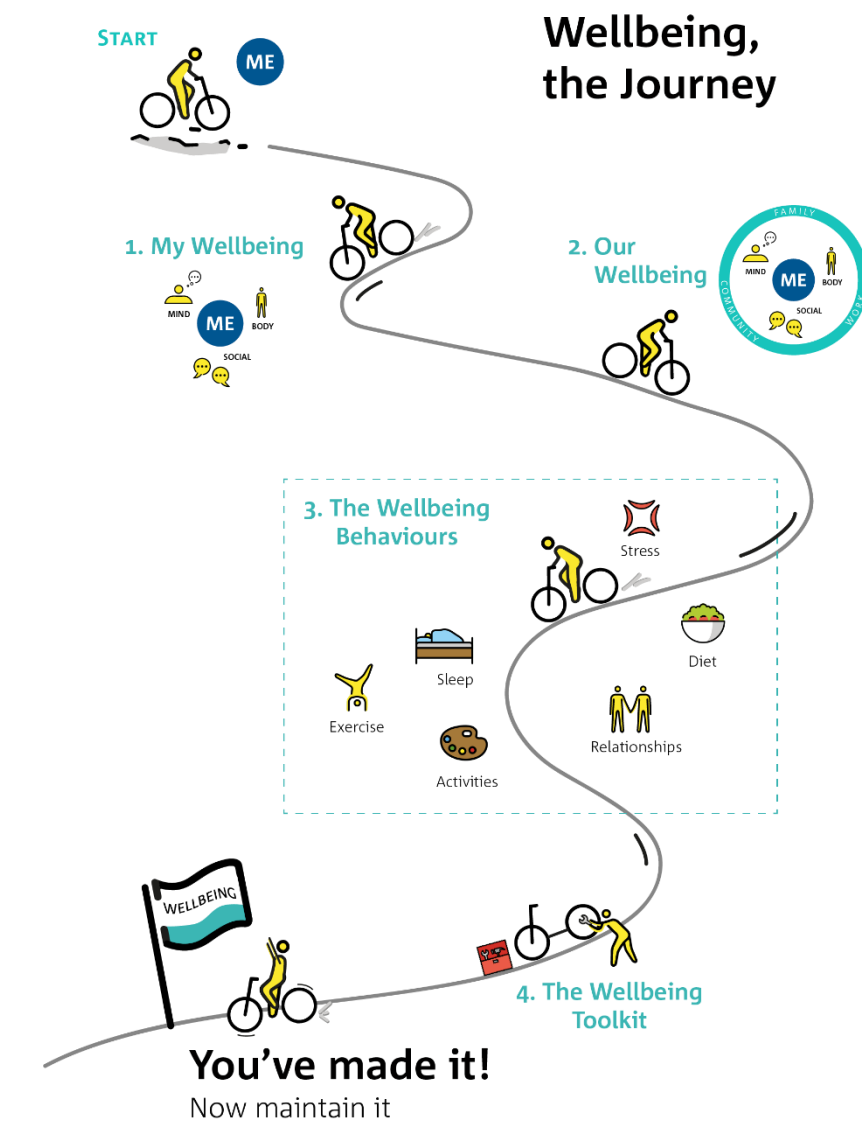


2: Off work



3: Going back to work

Is EASA IR/Guidelines Enough?  
Have we the right tools to cope (Pilots, Airlines, Industry)?



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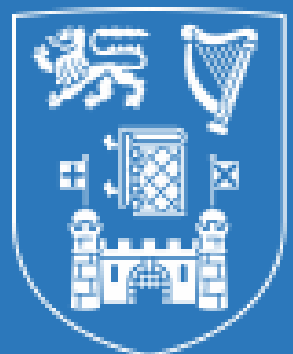
<https://www.tcd.ie/cihs/projects/pilot-lived.php>



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# How to Fly Straight & Level in Turbulent Times



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>

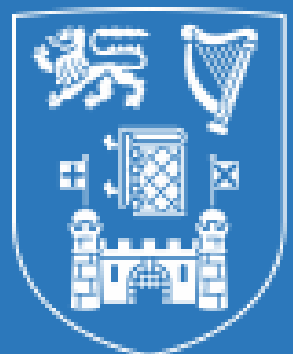
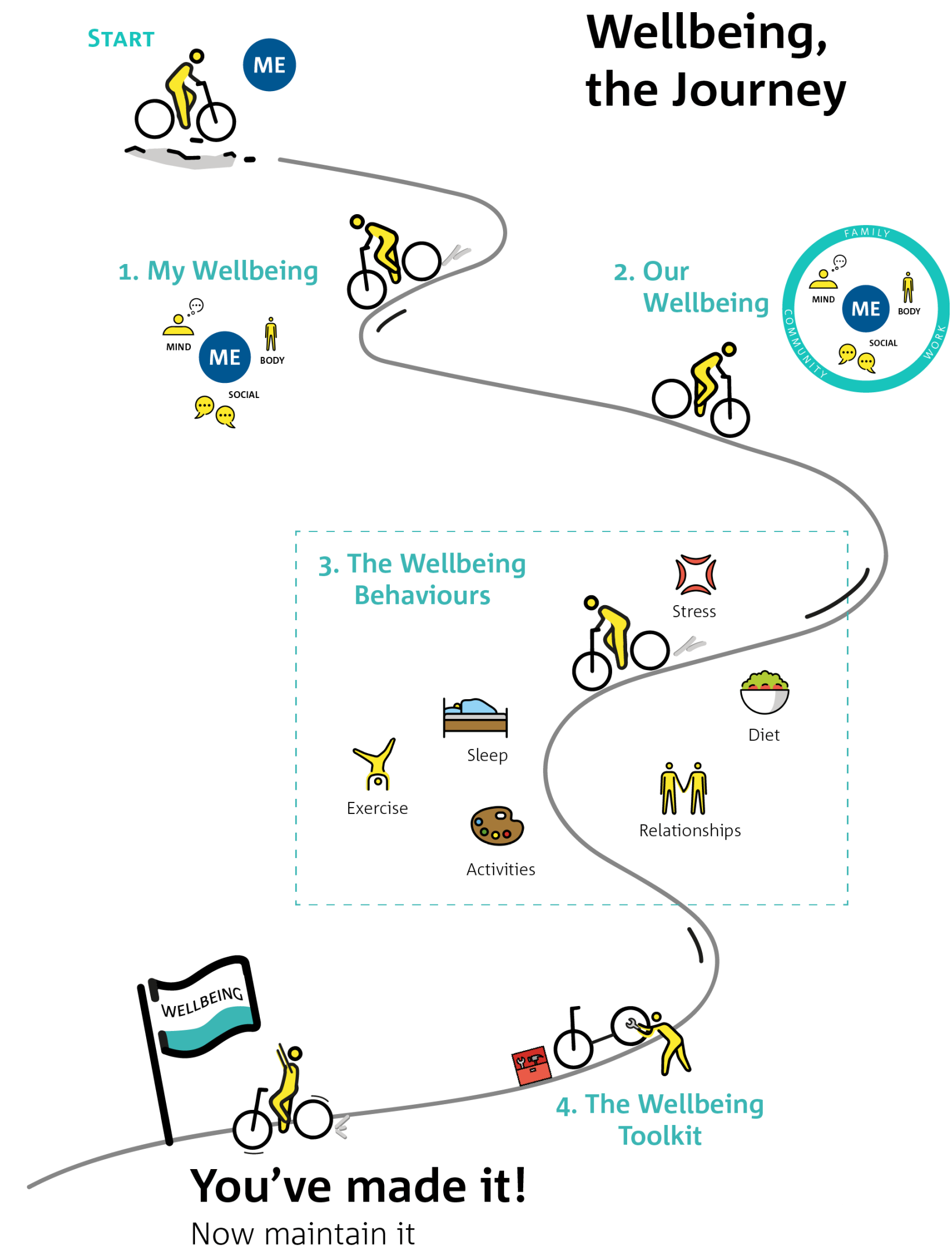


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# Resilience & Wellbeing Journey

- **Resilience** is defined as the ‘demonstration of positive adaptation in the face of significant adversity
- It is a response to stressful circumstances, as opposed to a trait or capacity residing in the person (Fikretoglu and McCreary, 2012)
- **Process**
- **Wellbeing Journey** (FSF, 2020)



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



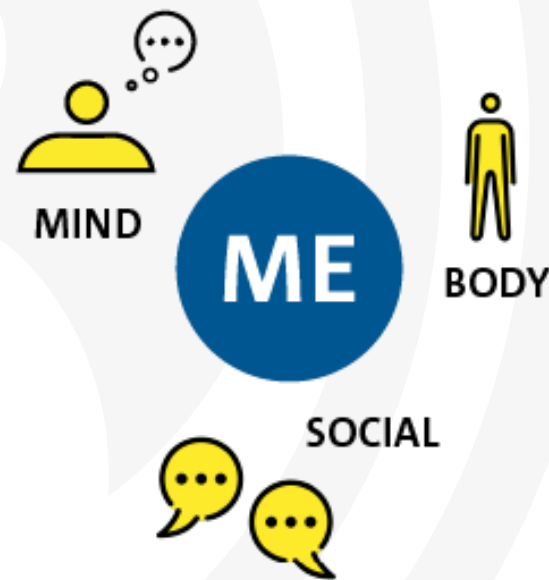
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# Wellbeing, the Journey

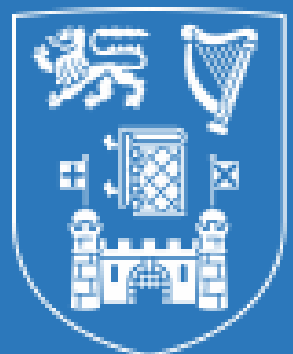
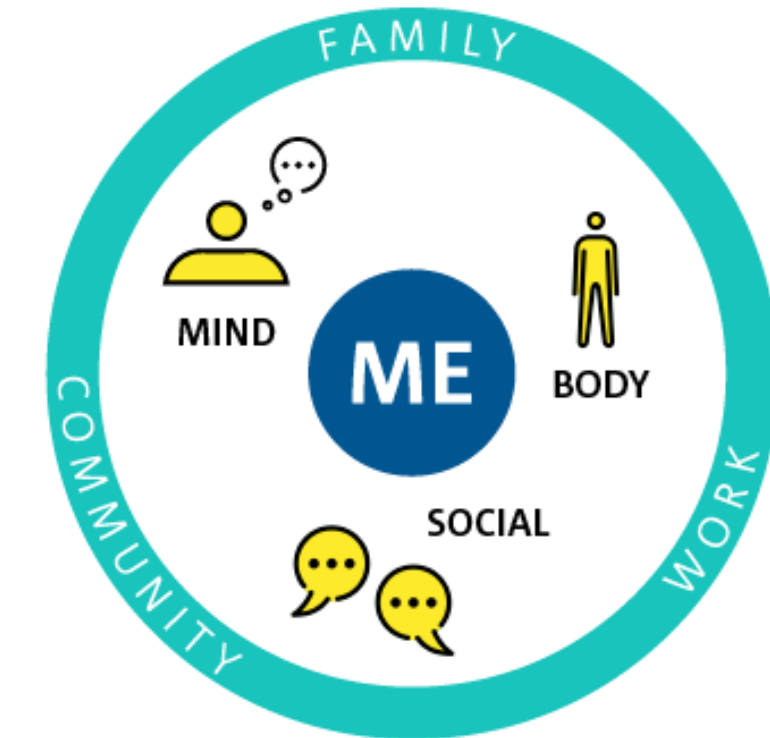
START

ME

## 1. My Wellbeing



## 2. Our Wellbeing

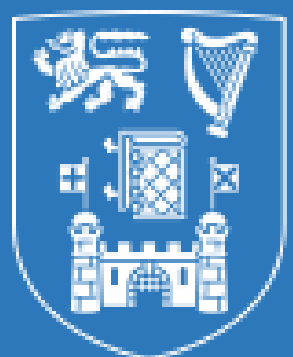
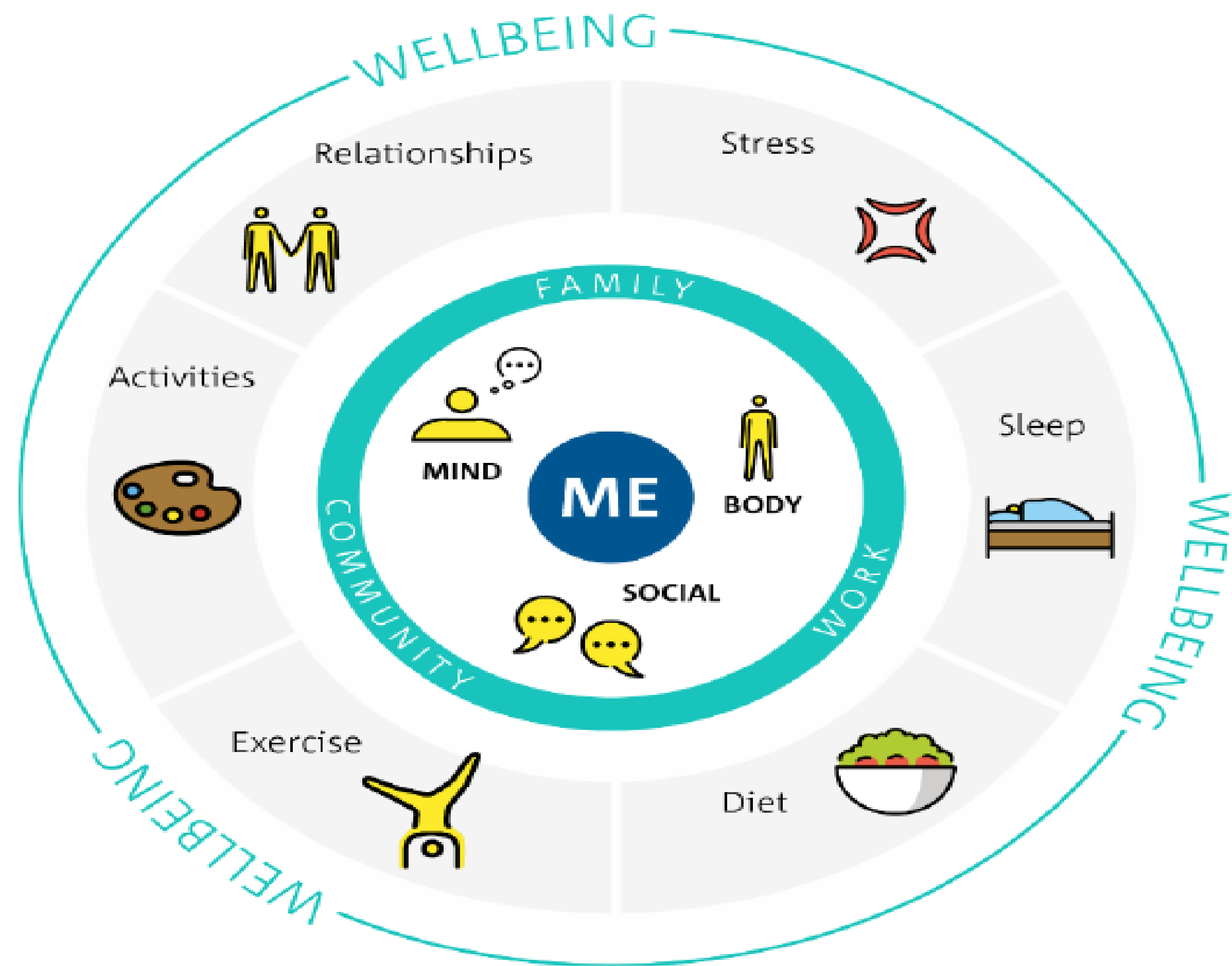


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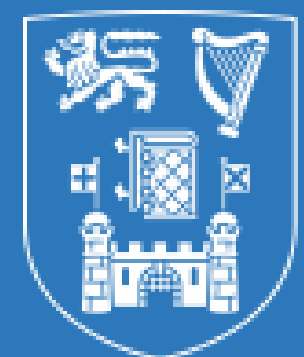
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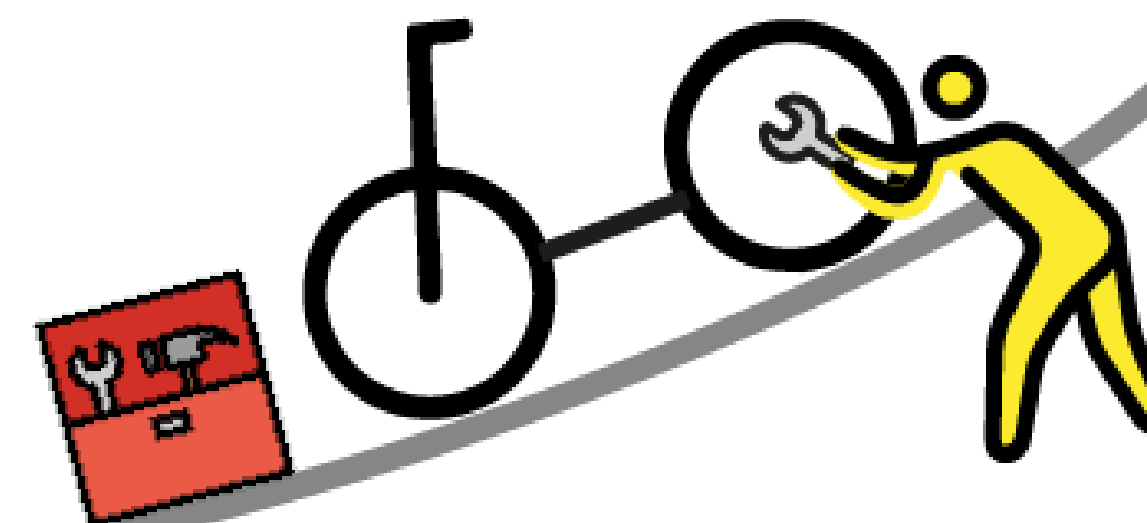


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### 3. The Wellbeing Behaviours

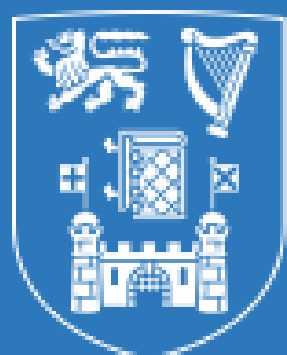




## 4. The Wellbeing Toolkit

# You've made it!

Now maintain it



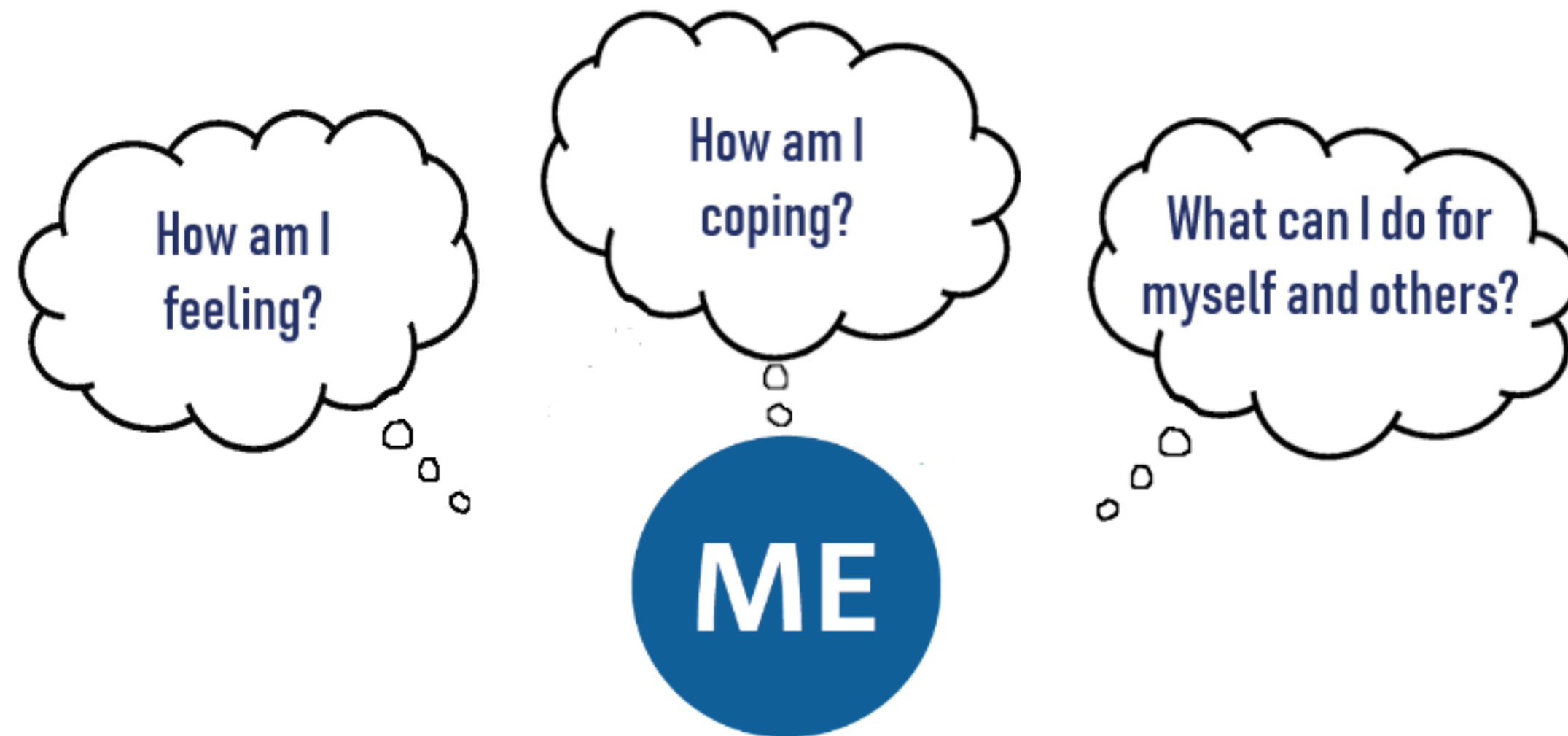
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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



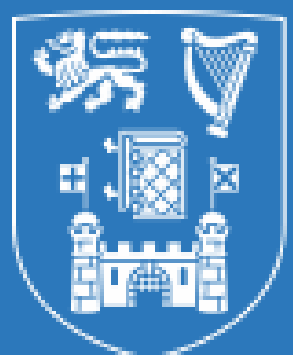
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# 3 Wellbeing Questions



Flight Safety Foundation: An Aviation Professional's Guide to Wellbeing (2020)

<https://flightsafety.org/wp-content/uploads/2020/04/Guide-to-Wellbeing.pdf>



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>

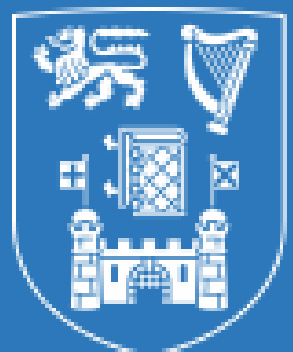
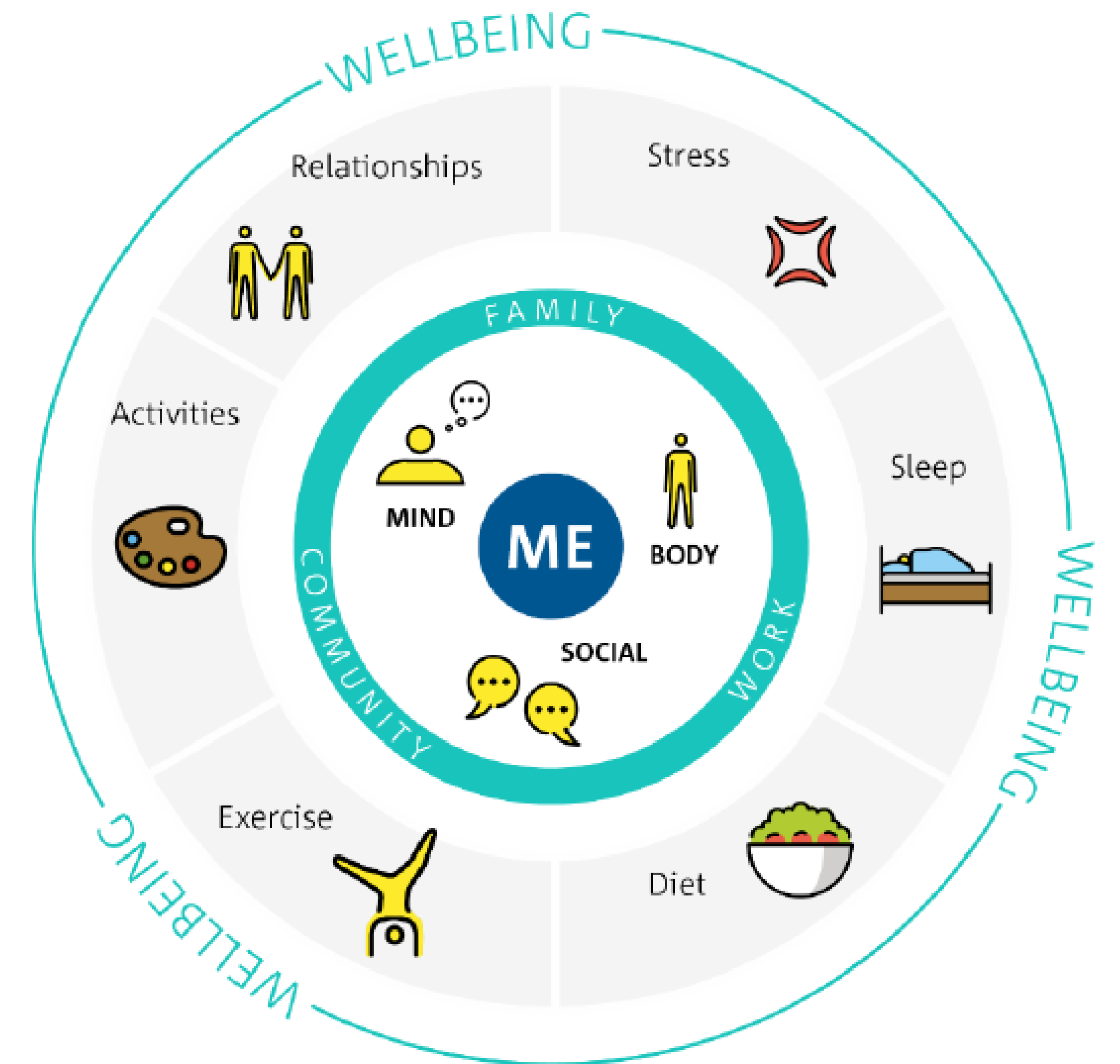


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# Wellbeing Management Across the Three Pillars

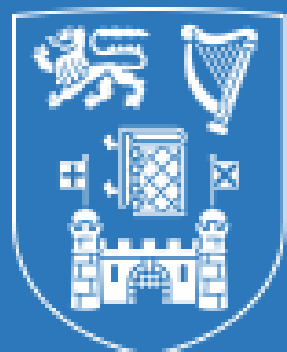
Pillar	Example	How Am I Doing? Current Rating/ Status? (Good, Ok, Poor)	What Can I Do to Improve this? What Am I Currently Doing to Improve this?
Biological	Sleep, Diet, Exercise		
Psychological	Attitude to life, Mood, Stress Management, Use of Coping Strategies		
Social	Support network, social support		



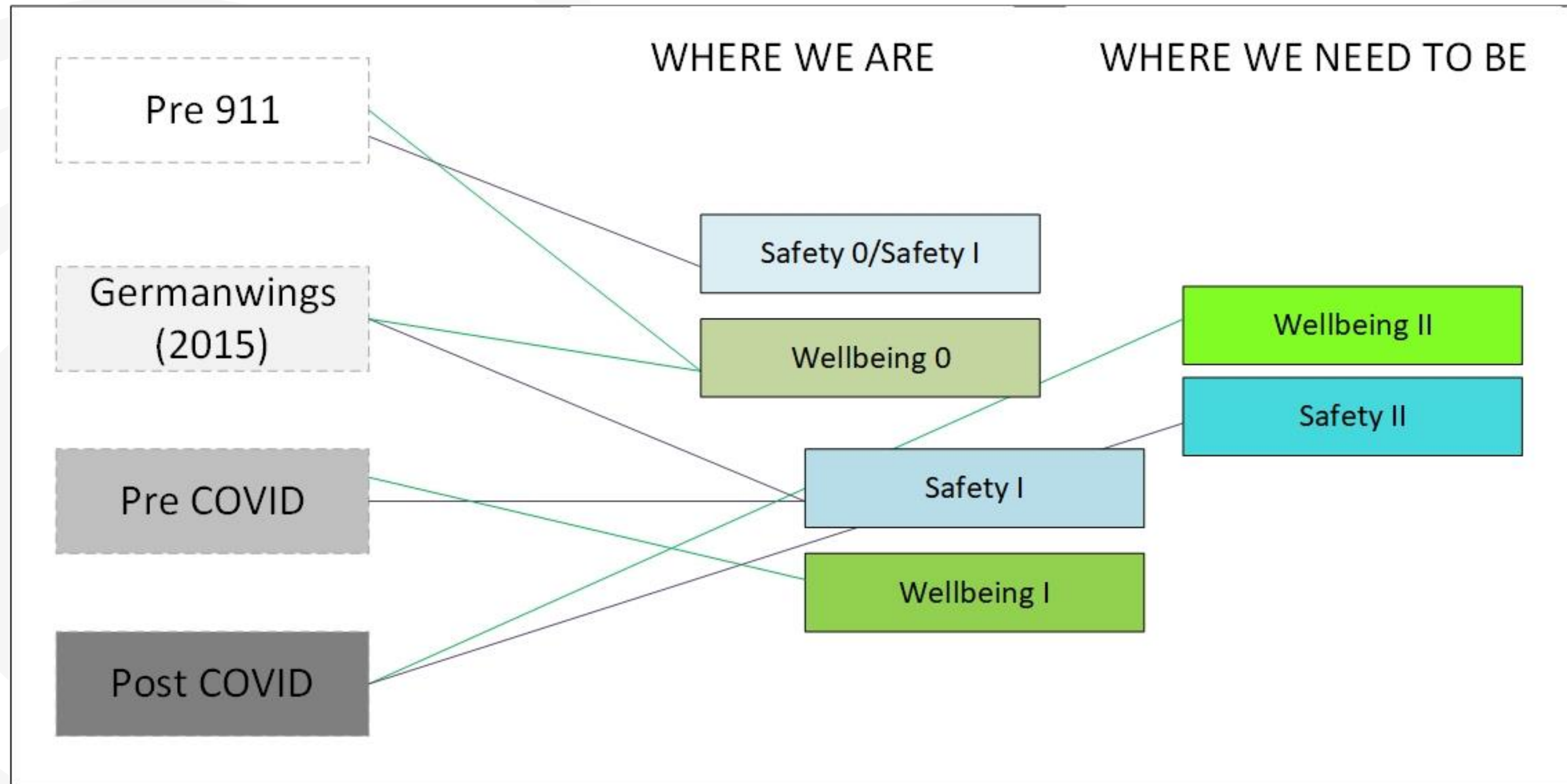
# Weekly/Daily Checklist

## WEEKLY TO DO

AREA	MON	TUE	WED	THU	FRI	SAT	SUN
Stress							
Sleep							
Diet – Breakfast Lunch Dinner							
Physical Exercise							
Activities							
Relationships							

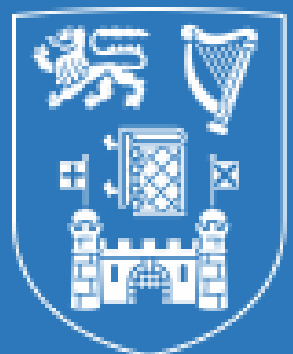


# 9. Research Roadmap & Next Steps



**Safety II.1**

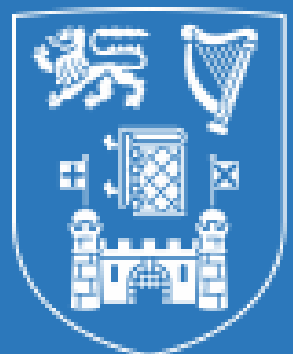
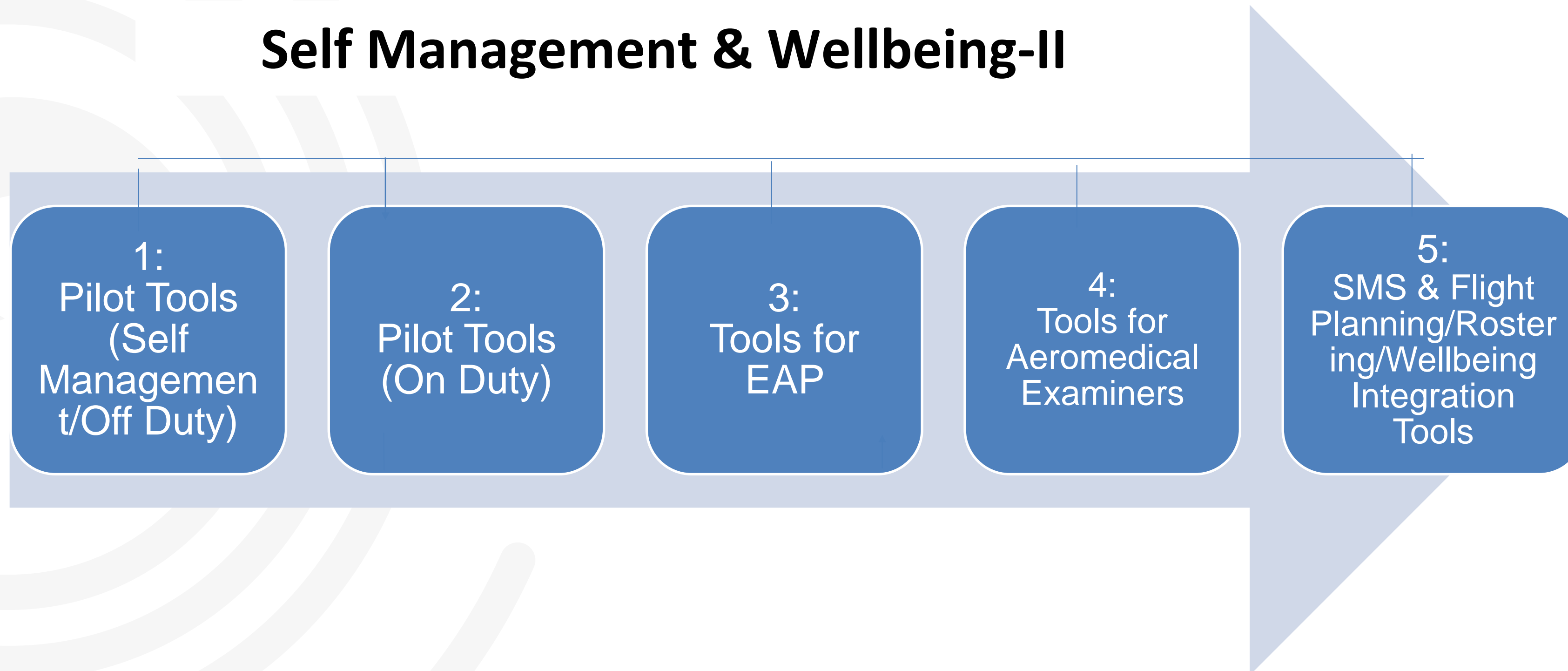
**Lived Experience Wellbeing Project**  
BIOLOGICAL - PSYCHOLOGICAL - SOCIAL



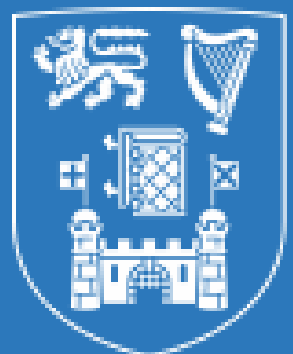
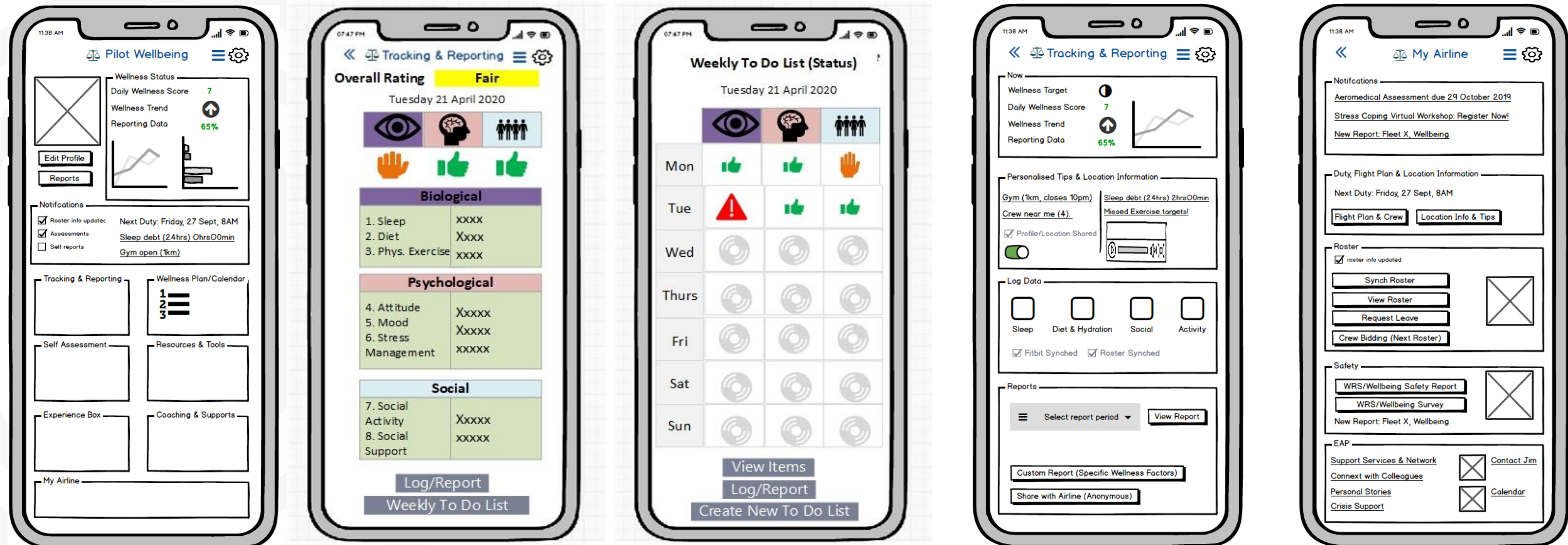


# Research Roadmap: Tools for Pilots, Airline & Industry

## Self Management & Wellbeing-II



# Research Roadmap: Tools for Pilots, Airline & Industry

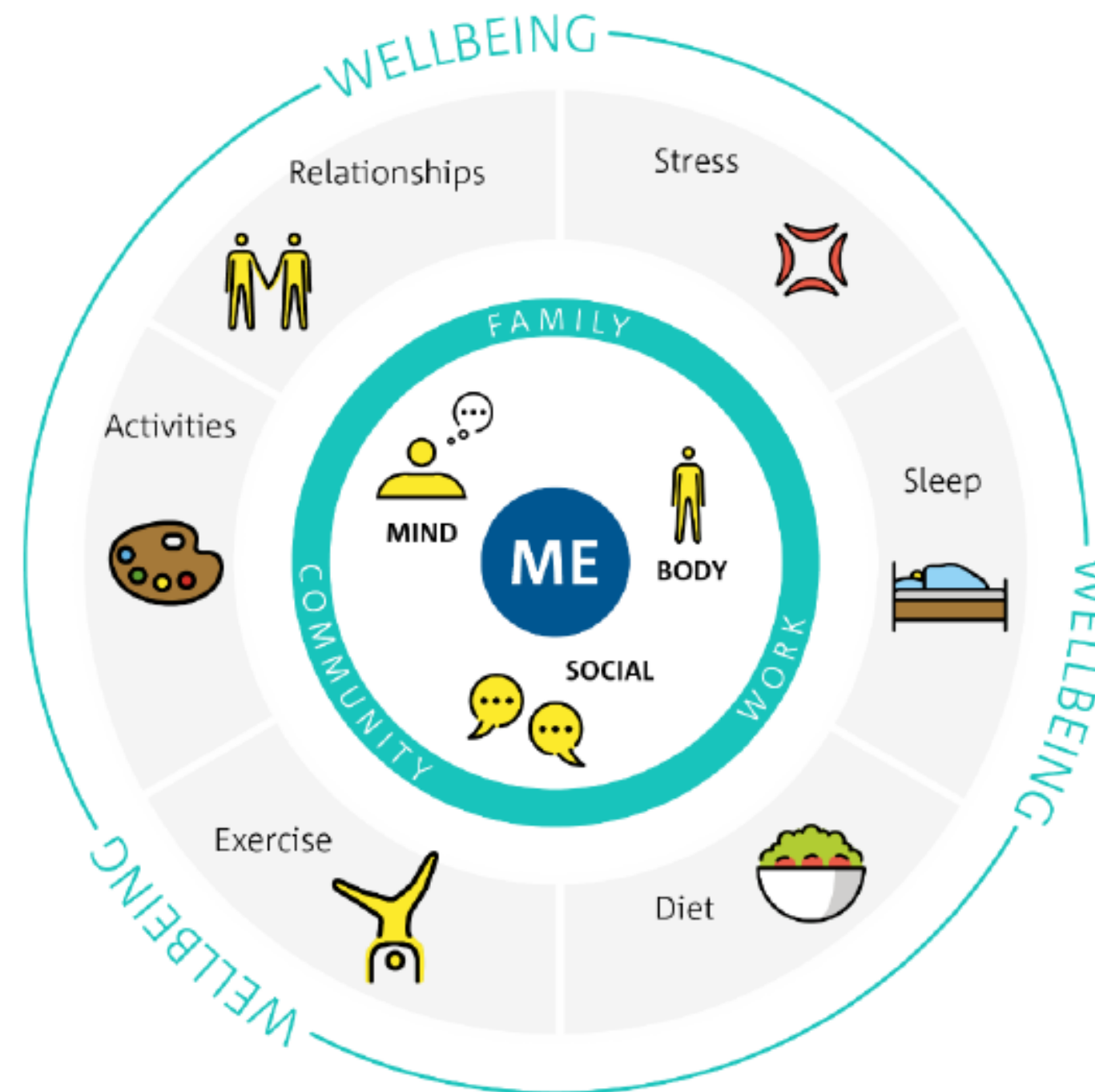


# Next Steps: Wellbeing Community & Virtual Challenge

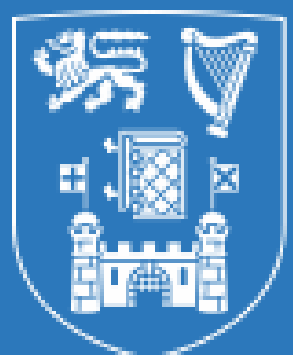
1. Join a User Community
2. Survey on tools
3. Interviews
4. Participate in a wellbeing game/virtual challenge



Lived Experience  
Wellbeing Project  
BIOLOGICAL - PSYCHOLOGICAL - SOCIAL



- **In progress**
- For more information, please email [cahilljo@tcd.ie](mailto:cahilljo@tcd.ie)
- Or see: <https://www.tcd.ie/cihs/projects/pilot-lived.php>



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>

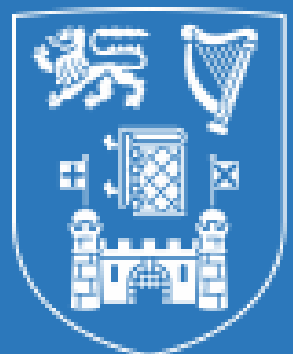


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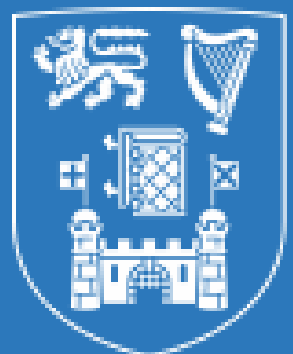
# Conclusions

- Aviation organisations need to rethink their **objectives and approach** in terms of providing **appropriate wellbeing supports** for those currently in work and off work.
- Those people who have lost their jobs and/or are experiencing MH difficulties require **immediate support**
- The **roles and responsibilities of different stakeholders** (i.e. workers, organisations, regulator, society/charities, government) in relation to managing wellbeing require rethinking and clarification.
- Aviation organisations need to address issues pertaining to their **wellbeing culture** – promoting healthy behaviour, supporting disclosure around mental health issues/challenges, promoting awareness of MH.



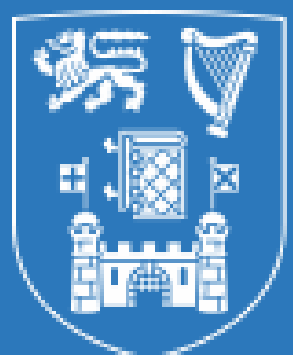
# Conclusions

- Organisations and workers need to manage **specific sources of stress** (including work related stress) **and anxiety**, and **specific impact of COVID 19** on aviation workers
- Aviation workers across different roles are **practising self-care** – this should be encouraged at all levels – linking to promoting a wellbeing culture and safe behaviour
- Need for **peer support for all aviation workers** – not just pilots
- The regulator needs to address the **timeline for new regulation** in relation to the management of wellbeing and mental health for safety critical workers – this **cannot be postponed** any further.





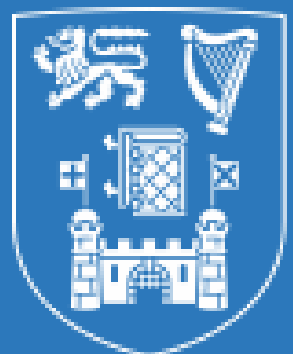
- The World Health Organisation have called for **reliable information** about mental health changes associated with the pandemic to be used by policymakers and service providers, so that **decisions are underpinned by knowledge** of the extent of changes in population mental health, and of who is most **vulnerable to symptoms of mental distress**.







# THE RIGHT STUFF



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# Resources - <https://www.tcd.ie/cihs/projects/pilot-lived.php>

## Moving Beyond Compliance, Safety-II Approach & Solutions for Pilots & Airlines

Cognition, Technology & Work  
<https://doi.org/10.1007/s10111-019-00586-z>

ORIGINAL ARTICLE

Interventions to support the management of work-related stress (WRS) and wellbeing/mental health issues for commercial pilots

Joan Cahill<sup>1</sup> · Paul Cullen<sup>1</sup> · Keith Gaynor<sup>2</sup>

Received: 1 May 2019 / Accepted: 24 July 2019  
© Springer-Verlag London Ltd., part of Springer Nature 2019

### Abstract

Research indicates that sources of work-related stress (WRS) impact on the physical, social, and psychological health of pilots. Furthermore, specific features of the job can increase a pilot's risk in relation to developing a mental health (MH) issue. It is impossible to remove all stress from the work life of pilots. A high stress situation may not necessarily be detrimental to the person, once they have learned to cope with it in a healthy manner. Nonetheless, risk pertaining to WRS need to be effectively managed by a pilot's employer. Therefore, it is important to identify solutions at an airline and pilot self-management level. This paper reports on the findings of human factors research undertaken with commercial pilots

Cognition, Technology  
& Work  
<https://doi.org/10.1007/s10111-019-00586-z>

## Stress Coping Booklet



<https://www.tcd.ie/cihs/assets/pdf/TurbulentTimes.pdf>

## The Requirements for New Tools for Use by Pilots and the Aviation Industry to Manage Risks Pertaining to Work-Related Stress (WRS) and Wellbeing....

technologies

MDPI

Article  
The Requirements for New Tools for Use by Pilots and the Aviation Industry to Manage Risks Pertaining to Work-Related Stress (WRS) and Wellbeing, and the Ensuing Impact on Performance and Safety

Joan Cahill<sup>1\*</sup>, Paul Cullen<sup>1</sup>, Sahab Ansari<sup>2</sup>, Keith Gaynor<sup>3</sup> and Simon Wilson<sup>4</sup>

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\* Correspondence: cahillj@tcd.ie

Received: 12 May 2020; Accepted: 29 June 2020; Published: 6 July 2020

**Abstract:** Work is part of our wellbeing and a key driver of a person's health. Pilots need to be fit for duty and aware of risks that compromise their health/wellbeing. Recent studies suggest that work-related stress (WRS) impacts on pilot health and wellbeing, performance, and flight safety. This paper reports on the advancement of new tools for pilots and airlines to support the management of WRS and wellbeing. This follows from five phases of stakeholder evaluation research and analysis. Existing pre-flight checklists should be extended to enable the crew to evaluate their health and wellbeing. New checklists might be developed for use by pilots while off duty supporting an assessment of (1) their biopsychosocial health status and (2) how they are coping. This involves the advancement of phone apps with different wellness functions. Pending

<https://www.mdpi.com/2227-7080/8/3/40>

## Lived Experience Wellbeing Project

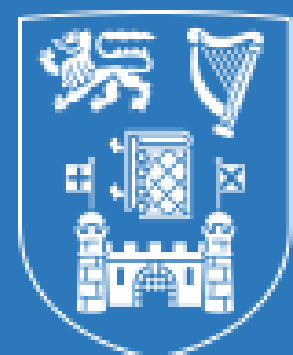


Lived Experience  
Wellbeing Project

BIOLOGICAL - PSYCHOLOGICAL - SOCIAL

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aviationwellbeing@gmail.com



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<https://www.tcd.ie/cihs/projects/pilot-lived.php>



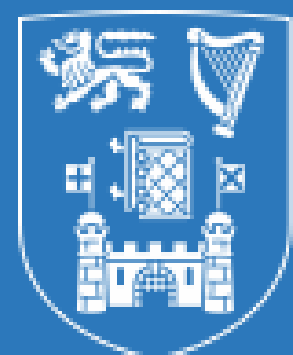
PEOPLE  
PROCESS  
PERFORMANCE

# Supports

If you need to talk to somebody about this, we suggest you approach a close family member or friend, or a health professional such as your own Doctor.

<b>Samaritans</b>	<a href="https://www.samaritans.org">https://www.samaritans.org</a>
<b>European Agency for Safety and Health in Work (EU-OSHA)</b>	<a href="https://osha.europa.eu/en/themes/covid-19-resources-workplace#pk_campaign=ban_homecw">https://osha.europa.eu/en/themes/covid-19-resources-workplace#pk_campaign=ban_homecw</a>
<b>EASA COVID-19 Support Material</b>	<a href="https://www.easa.europa.eu/community/content/covid-19-support-material">https://www.easa.europa.eu/community/content/covid-19-support-material</a>
<b>Flight Safety Foundation</b>	<a href="https://flightsafety.org/toolkits-resources/covid-19-safety-roadmap-and-punch-lists/">https://flightsafety.org/toolkits-resources/covid-19-safety-roadmap-and-punch-lists/</a> <a href="https://flightsafety.org/wp-content/uploads/2020/04/Guide-to-Wellbeing.pdf">https://flightsafety.org/wp-content/uploads/2020/04/Guide-to-Wellbeing.pdf</a>
<b>Aviation Action</b>	<a href="https://aviationaction.org/">https://aviationaction.org/</a>
<b>European Aviation Mental Well-being Initiative (EAM-WELL)</b>	<a href="http://eppsi.eu/">http://eppsi.eu/</a>
<b>European Pilot Peer Support Initiative</b>	<a href="http://eppsi.eu/european-aviation-mental-well-being-initiative-eam-well/">http://eppsi.eu/european-aviation-mental-well-being-initiative-eam-well/</a>
<b>RAeS</b>	<a href="https://www.youtube.com/watch?v=pT8uB7fVV44&amp;feature=emb_title">https://www.youtube.com/watch?v=pT8uB7fVV44&amp;feature=emb_title</a>
<b>Aerospace Medical Association (AsMA)</b>	COVID-19 - Aviation Personnel and Mental Health Support (David Schroeder,2020)
<b>Australian Psychological Association (APA)</b>	<a href="https://www.psychology.org.au/getmedia/3821ed7a-1a8a-4e1d-b303-2943ea9ae6b7/20APS-IS-COVID-19-Public-P2_2.pdf">https://www.psychology.org.au/getmedia/3821ed7a-1a8a-4e1d-b303-2943ea9ae6b7/20APS-IS-COVID-19-Public-P2_2.pdf</a>
<b>American Psychiatric Association</b>	<a href="https://psychiatry.ucsf.edu/coronavirus/coping">https://psychiatry.ucsf.edu/coronavirus/coping</a> <a href="https://blogs.webmd.com/mental-health/20200409/what-to-do-if-youre-struggling">https://blogs.webmd.com/mental-health/20200409/what-to-do-if-youre-struggling</a>
<b>National Alliance on Mental Illness (NAMI).</b>	<a href="https://nami.org/Support-Education/NAMI-HelpLine/COVID-19-Information-and-Resources">https://nami.org/Support-Education/NAMI-HelpLine/COVID-19-Information-and-Resources</a>
<b>National Institutes of Health</b>	<a href="https://www.nih.gov/health-information/your-healthiest-self-wellness-toolkits">https://www.nih.gov/health-information/your-healthiest-self-wellness-toolkits</a>

WHO (World Health Organization). <https://www.who.int/publications-detail/WHO-2019-nCoV-MentalHealth-2020.1>



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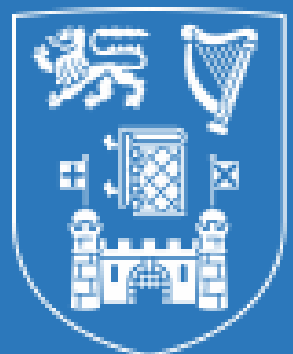


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- Thanks also to the following groups who have supported this survey/research



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# Thank You

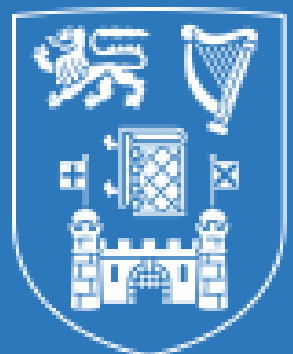
## Key Points

- Appropriate Wellbeing supports?
- Immediate support?
- Roles & responsibilities of stakeholders?
- Wellbeing Culture
- Need to manage specific sources of stress.
- Self-care.
- Peer Support for all.
- Regulations needed now



## Lived Experience Wellbeing Project

BIOLOGICAL - PSYCHOLOGICAL - SOCIAL



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