Trinity College Dublin
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The University of Dublin

Lived Experience
Wellbeing Project
BIOLOGICAL - PSYCHOLOGICAL - SOCIAL

AVIATON WORKER WELLBEING: RECENT RESEARCH ON MENTAL HEALTH ISSUES AND SUPPORT ACROSS AVIATION

Meeting the Challenges of Work-Related Stress and Mental Health in Aviation Workshop

(May 22, 2022)

Dr Joan Cahill, Captain Paul Cullen, Prof Keith Gaynor, Sohaib Anwer & Fiona Hegarty

Lived Experience & Wellbeing Project
Centre for Innovative Human Systems (CIHS)
School of Psychology, Trinity College Dublin, Ireland

Overview

1. Introduction
2. Key point from research
3. Recent research findings (COVID 19, 2021 Survey)
   - Health Measures
   - Disclosure/attitudes to talking about MH
   - Organisational culture - priorities and supports provided
   - Selfcare and coping
   - Trust, Engagement & Motivation
   - Talking About MH
   - Peer Support
   - Wellbeing, Performance & Safety Impact
4. Contact

Lived Experience
Wellbeing Project
BIOLOGICAL - PSYCHOLOGICAL - SOCIAL

Introduction to Lived Experience & Wellbeing Project

Lived Experience & Wellbeing Project Team

Dr Joan Cahill
(TCD)

Captain Paul Cullen
(TCD)

Fiona Hegarty
(TCD)

Sohaib Anwer
(TCD)

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(UCD)

Airplanes are maintained to ensure that they are airworthy. We are no different!

Wellbeing & Mental Health

All of us

Mental Illness

Mental Wellness

On an ever fluctuating continuum

3 Pillars of Health & Wellbeing

Our Vision

Our vision is to change:

- The health and wellbeing situation for pilots (and other airline personnel) – with particular attention to health and wellbeing in work, and loops between health and wellbeing in and outside work (i.e., on and off duty).
- Aviation organisations/airline's approach to wellbeing management for pilots – **treated as a shared responsibility.**

Wellbeing as a factor in safe performance (link to Safety II/Safety II.I)

3 L's - licence, livelihood and life

Using data and evidence ….

Trust, Privacy, Respect, Dignity

Summary of Research

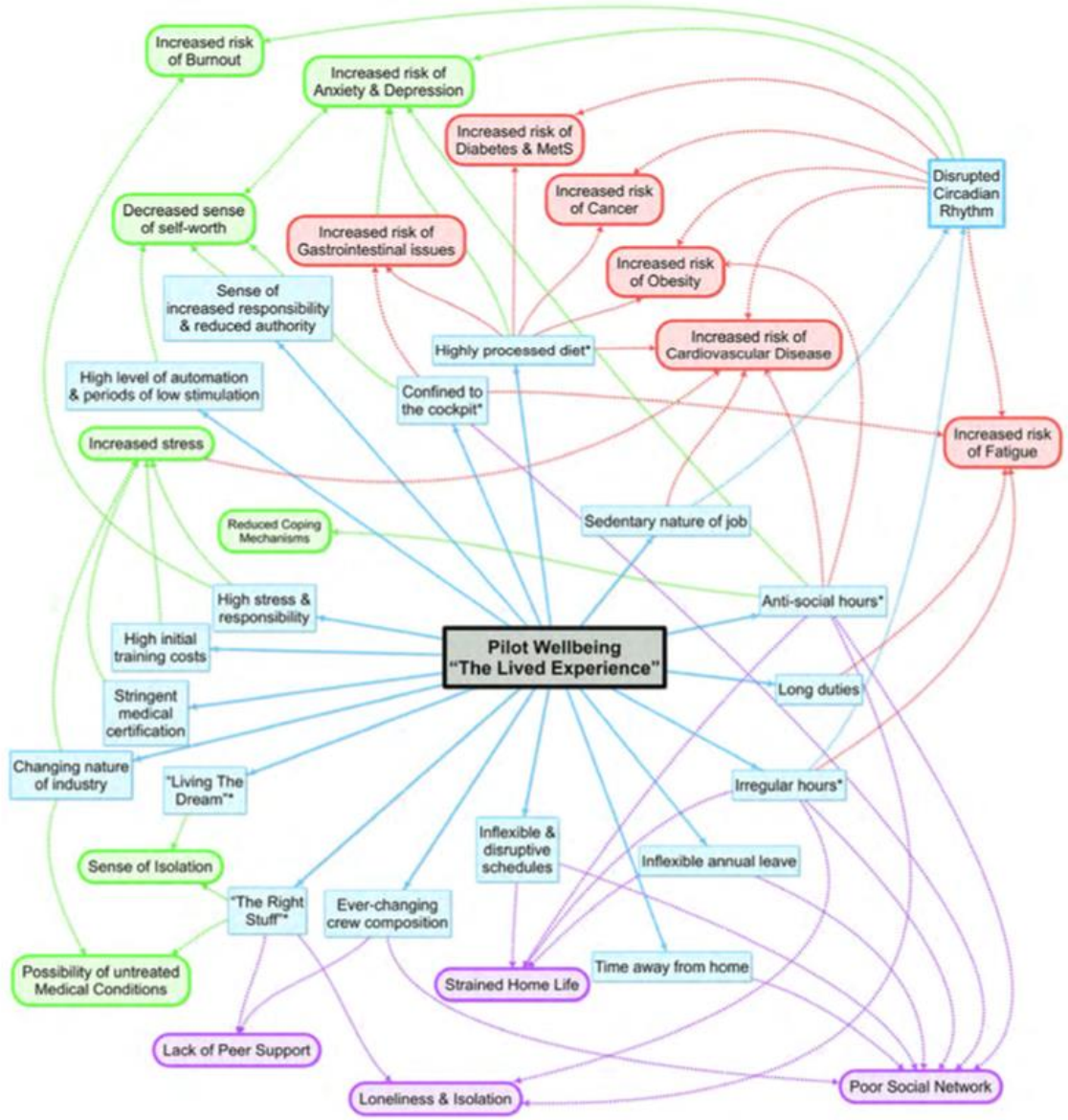
#	When	Group	Focus	Method
1	2015 to 2016	Pilots (n= 103)	Lived experience of job	Informal Interviews
2	2018	Pilots (n=33)	Sources of WRS, Relationship between wellbeing performance and safety	Workshops
3	2018/2019	Pilots (n= 1,059)	Measuring wellbeing, resilience	Wellbeing Survey
4	2019/2020	Aviation stakeholders (n=15)	Problem framing, addressing COVID need, wellbeing II, role of technologies	Workshops/ Interviews
5	August 2020	All aviation workers (n=2,050)	Impact of COVID on wellbeing and safety	COVID Survey
6	November 2020 to February 2021	Pilots (n=82)	Health behaviours, Disclosure, Wellbeing Tools	Survey
7	November 2020 to Present	Pilots (n=15)	Wellbeing Tools and data protection	Interviews & Codesign
8	Jan 2021 to Present	Technologists (N=6) Aviation Stakeholders (n=6)	Wellbeing Tools	Interviews
9	Jan 2021 to April 2021	Aviation workers in an organisation (n=88)	Health behaviours, Disclosure, Wellbeing Tools	Survey
10	**October 5 to December 5, 2021**	**All Aviation Workers (n=1,172)**	**Impact of COVID on wellbeing and safety**	**COVID Survey 2**

Pilots >>Industry Stakeholders>> All Aviation Workers

Sources of Work Related Stress (WRS)

Factors impinging simultaneously on more than one pillar are highlighted with an *

Biological	Psychological	Social
Working irregular hours*		
Working anti-social hours*		
Working within the close confines of the cockpit*		
Divergence of values between management and pilots*		
Unnatural location of work environment (5 miles up in the sky – no supports/can't step out)*		
Working long duties	Increased responsibility with reducing authority/support*	
Difficulties accessing fresh, healthy food	Lack of engagement (management and pilots)*	
Sedentary nature of working as a pilot	Perception of pilots possessing "The Right Stuff"*	
Cockpit environment – air quality, oxygen levels, noise	Perception that pilots are "living the dream"*	
	Time away from home*	
	Not having a sense of home/never at home*	
	Lack of certainty in relation to roster (changes)*	
	Being contacted by work when off duty if staffing/roster issues*	
	Managing and understanding cultural differences (international workforce)*	
	Commuting lifestyle*	
	Long working day in close contact with one other person (may or may not get on with)*	
	Captain responsibility – never switch off	Working inflexible / disruptive schedules
	Changing nature of the industry	Inflexible annual leave allocations
	Automation and prolonged periods of low stimulation	Ever-changing crew composition
	High training costs	
	Stringent medical certification	


Pilot Wellbeing
"The Lived Experience"
Increased risk of Burnout
Increased risk of Anxiety & Depression
Increased risk of Diabetes & MetS
Increased risk of Cancer
Disrupted Circadian Rhythm
Decreased sense of self-worth
Increased risk of Gastrointestinal issues
Increased risk of Obesity
Sense of increased responsibility & reduced authority
Highly processed diet*
Increased risk of Cardiovascular Disease
High level of automation & periods of low stimulation
Confined to the cockpit*
Increased stress
Increased risk of Fatigue
Reduced Coping Mechanisms
Sedentary nature of job
High stress & responsibility
Anti-social hours*
High initial training costs
Long duties
Stringent medical certification
Changing nature of industry
"Living The Dream"*
Irregular hours*
Inflexible & disruptive schedules
Inflexible annual leave
Sense of Isolation
"The Right Stuff"*
Ever-changing crew composition
Possibility of untreated Medical Conditions
Time away from home
Strained Home Life
Lack of Peer Support
Loneliness & Isolation
Poor Social Network

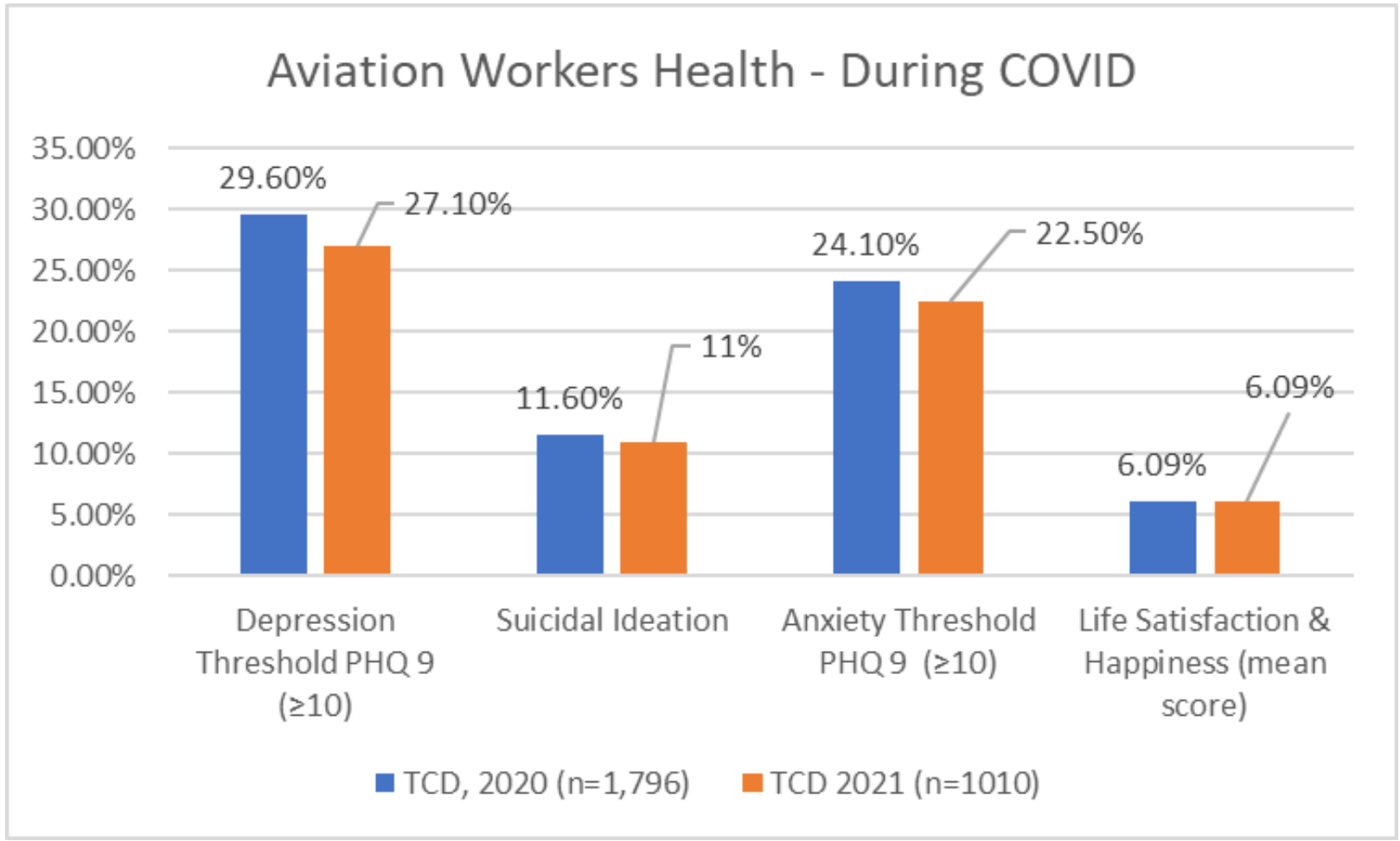
Key Points from Research

Key Points: Health & Wellbeing

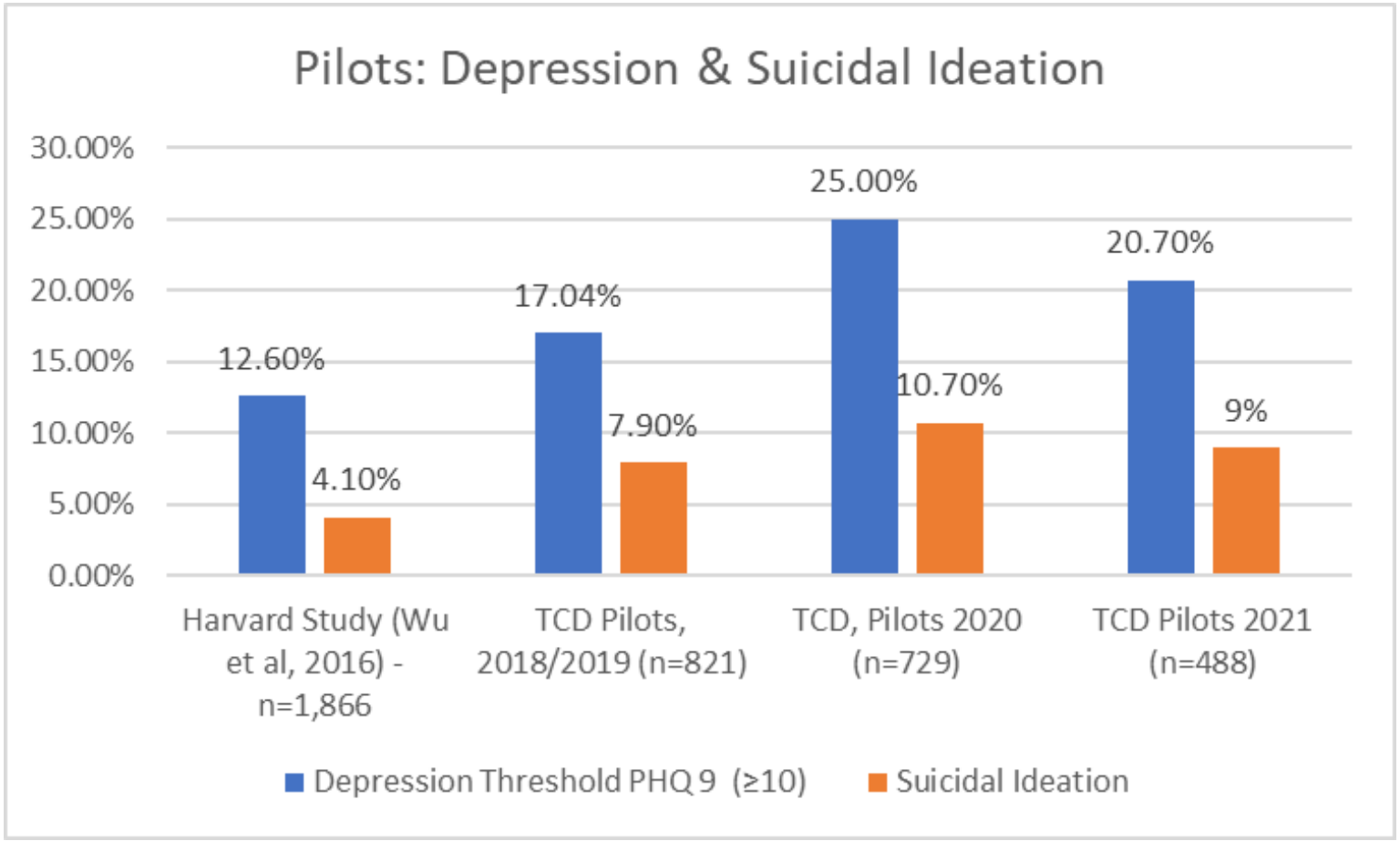
- Significant levels of psychological distress as identified by measures of anxiety and depression.
  - Levels of life satisfaction and happiness below OECD average
  - For all aviation workers, levels of wellbeing have been mostly stable during COVID timeframe
  - For pilots, levels of wellbeing have disimproved as compared with pre pandemic levels (20218/2019)
- Suffering is not equal amongst aviation workers
  - Cabin Crew and Maintenance having lower levels of wellbeing, as compared with Pilots and Air Traffic Controllers.
  - Females have lower levels of wellbeing, as do younger workers and those who have lost their job.
- A comparison of findings with equivalent general population studies indicates that the number of aviation workers screening positive for anxiety and depression is slightly higher than what is reported in the population.
- There is no comparative information in relation to assessing trends for those with significant levels psychological distress.

	Happiness & Life Satisfaction	At or Above Threshold for Moderate Depression/PHQ 9 (≥10, include moderate, moderately severe, and severe depression)	At or Above Threshold for Moderate Anxiety/GAD 7 (≥10, includes moderate and severe anxiety)	Suicidal Ideation
PRE COVID 19				
Population	6.5%. (OECD, 2019).	29.8% (Hyland et al, 2021)	22.3% (Hyland et al, 2021)	3.1% (Nock et al, 2018) 3.9% (CDC)
Pilots	Not available	12.6% (Wu et al, 2016) 17.04% (11.08%, 4.38%, 1.58%) (Cahill et al, 2021)	Not available	4.1% (Wu et al, 2016 7.9% (Cahill et al, 2020)
All Aviation Workers	Not available	Not available	Not available	Not available
SINCE COVID 19				
Population	6.5%. (OECD, 2021).	22.8% (Hyland et al, 2021) 20% (Shelvin et al, 2021)	20.0%, (Hyland et al, 2021) 20% (Shelvin et al, 2021)	Not available
Pilots 2020	6.178%	25% (15.4%, 6.1%, 3.5%)	21% (13%, 8%)	10.07%
All Aviation Workers 2020	6.086%	29.6% (17.7%, 7.4%, 4.5%)	24.1% (12.8%, 11.3%)	11.6%
Pilots 2021	6.158%	20.7% (13.7%, 5%, 2%)	17% (11%, 6%)	9%
All Aviation Workers 2021	6.089%	27.1% (16.10%, 8%, 3%)	22.5% (13%, 9.5%)	11%

All Aviation Workers: Life Satisfaction, Depression, Suicidal Ideation & Anxiety (2020 & 2021)



Depression & Suicidal Ideation: Pilots (Pre & Since COVID)

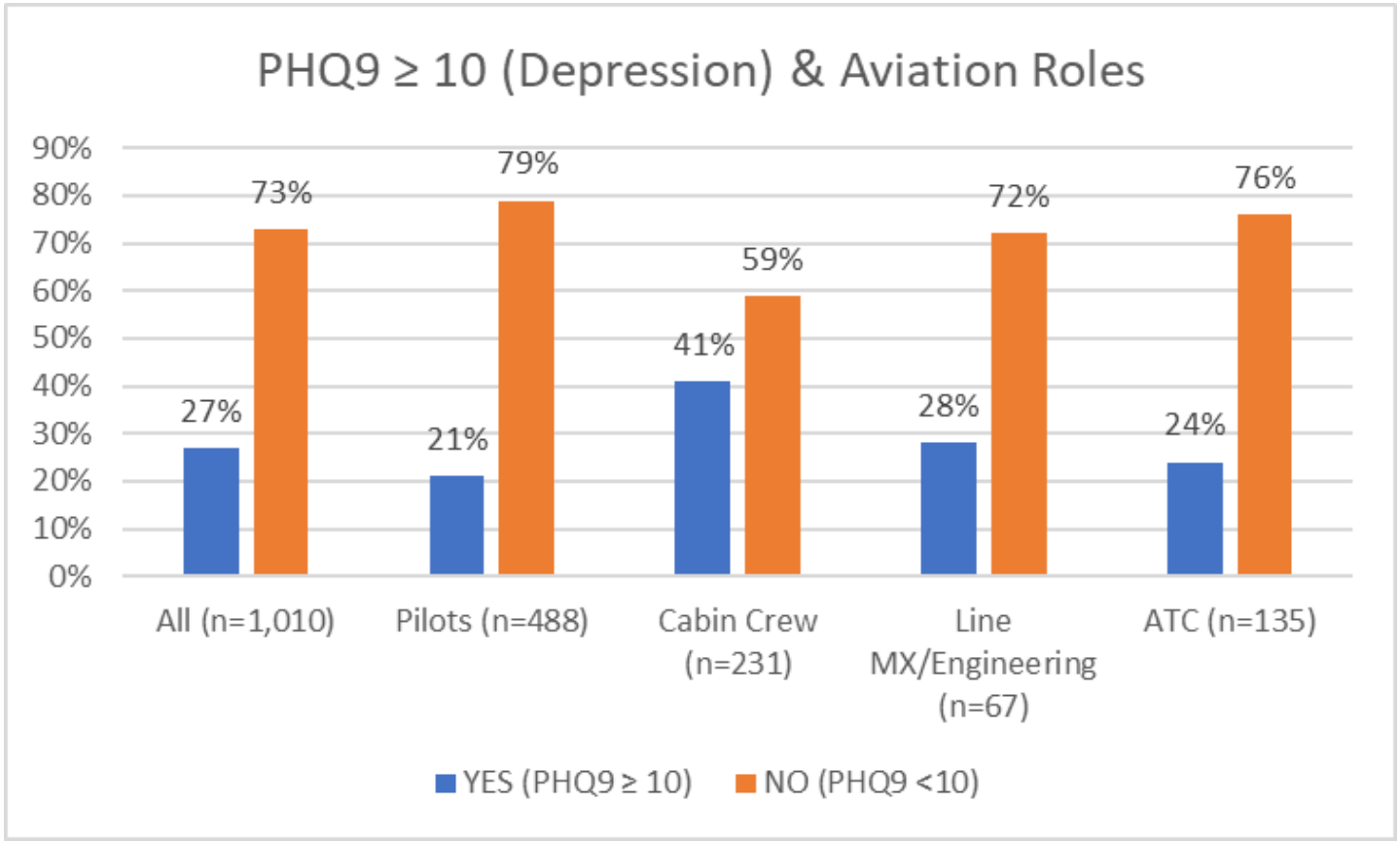


Key Points: Reporting, Culture, Supports

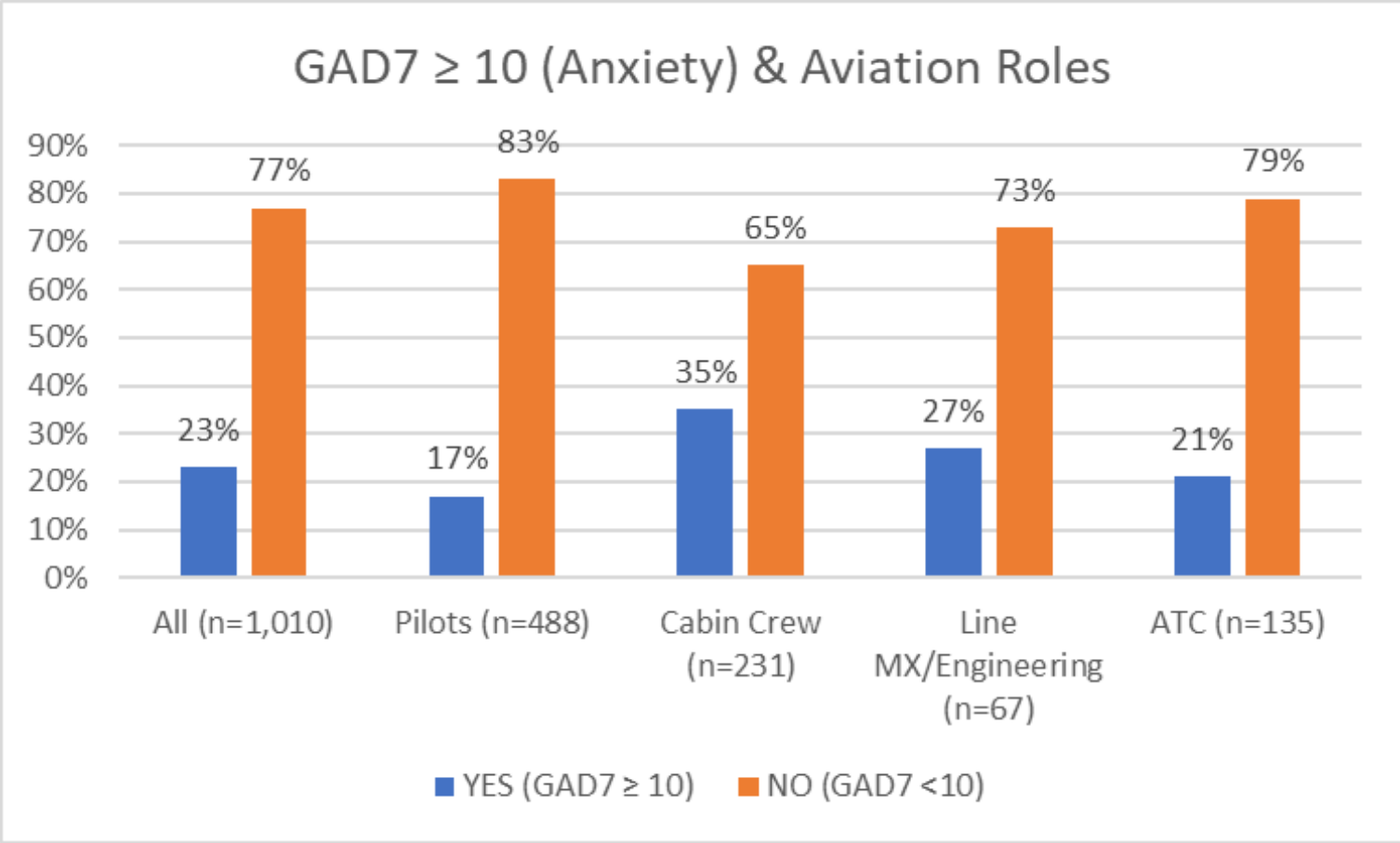
- Org level
  - Poor wellbeing culture - wellbeing not a priority
  - Very poor support from employers (poor wellbeing culture) both prior to COVID & since COVID
  - Very few examples of preventative approaches
- Wellbeing reporting challenges
  - Conflicts across three L's (Livelihood, Licence and Life)
  - Not disclosing challenges to employer, but disclosing to family/spouse
- Poor uptake on peer support
- Prevalence of coping mechanisms
- Benefits of self care – sleep, physical activity, diet, social
- Relationship between wellbeing, performance and safety
- Need for change
  - Employer level – culture change, need for preventative approach, address positive wellbeing, address wellbeing risk in SMS
  - Regulatory Level – need AMC for wellbeing, managing wellbeing risk within SMS

COVID Survey 2 (2021)
Health & Wellbeing

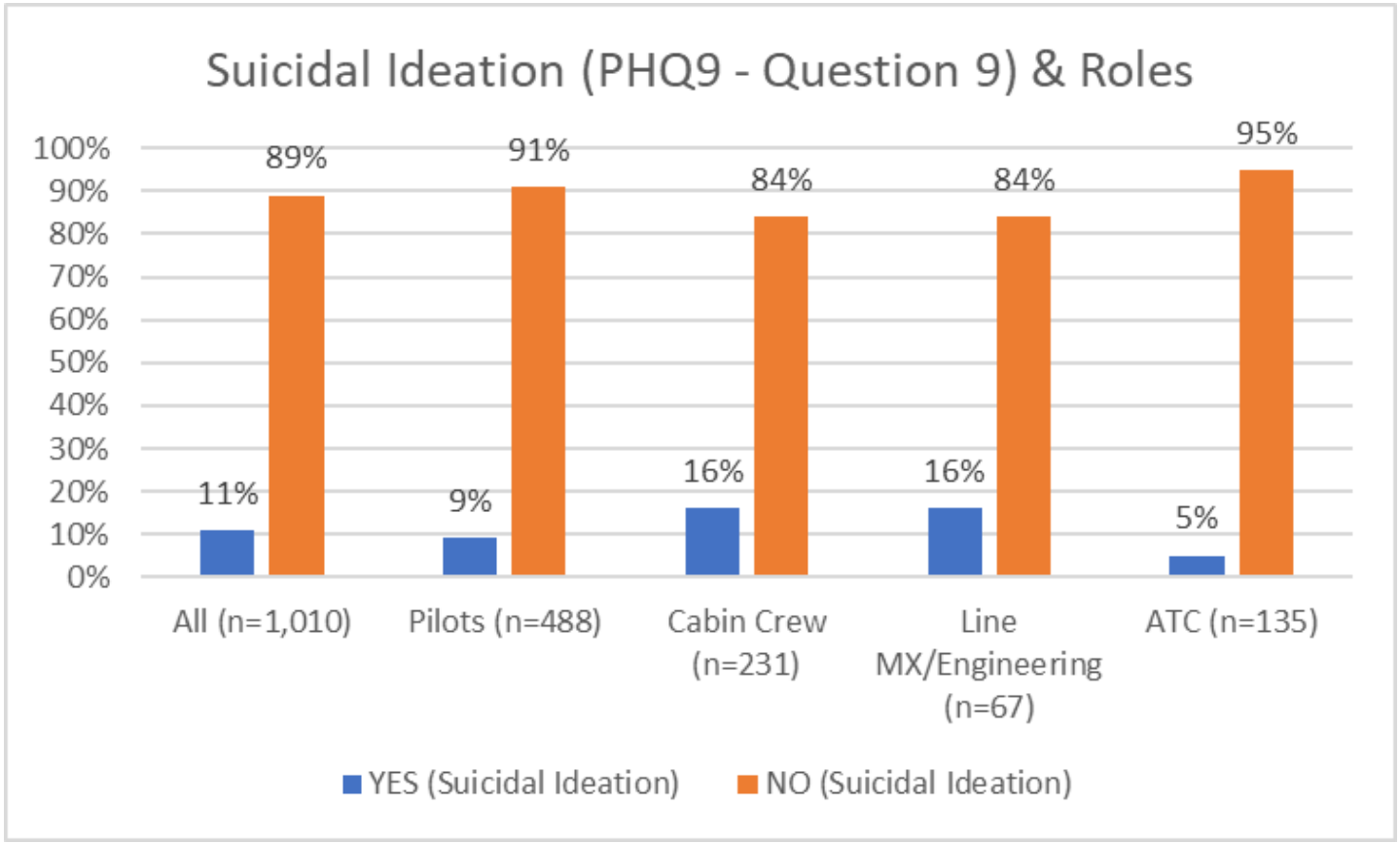
2021 Survey: Depression & Roles



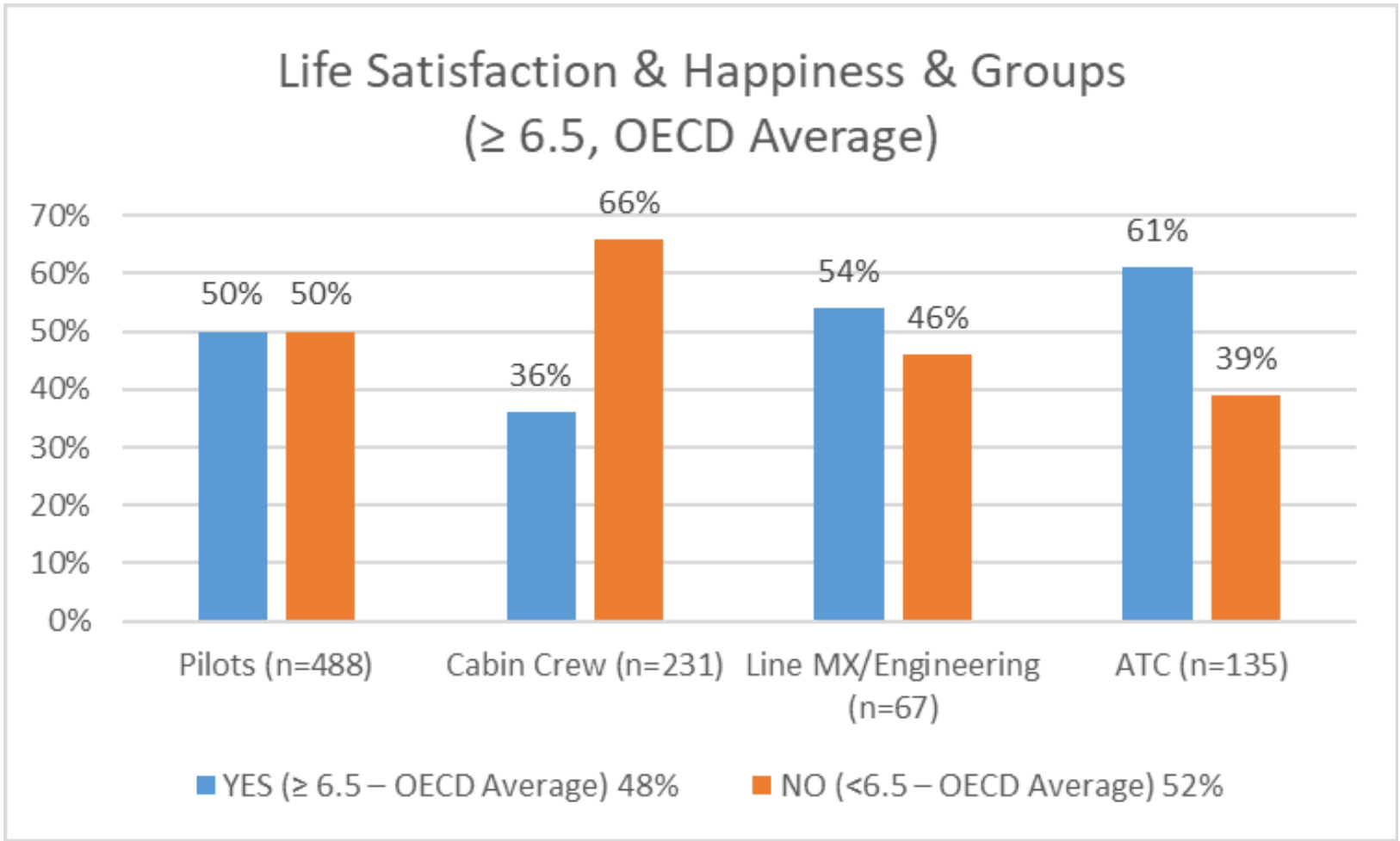
2021 Survey: Anxiety & Roles



2021 Survey: Suicidal Ideation & Roles

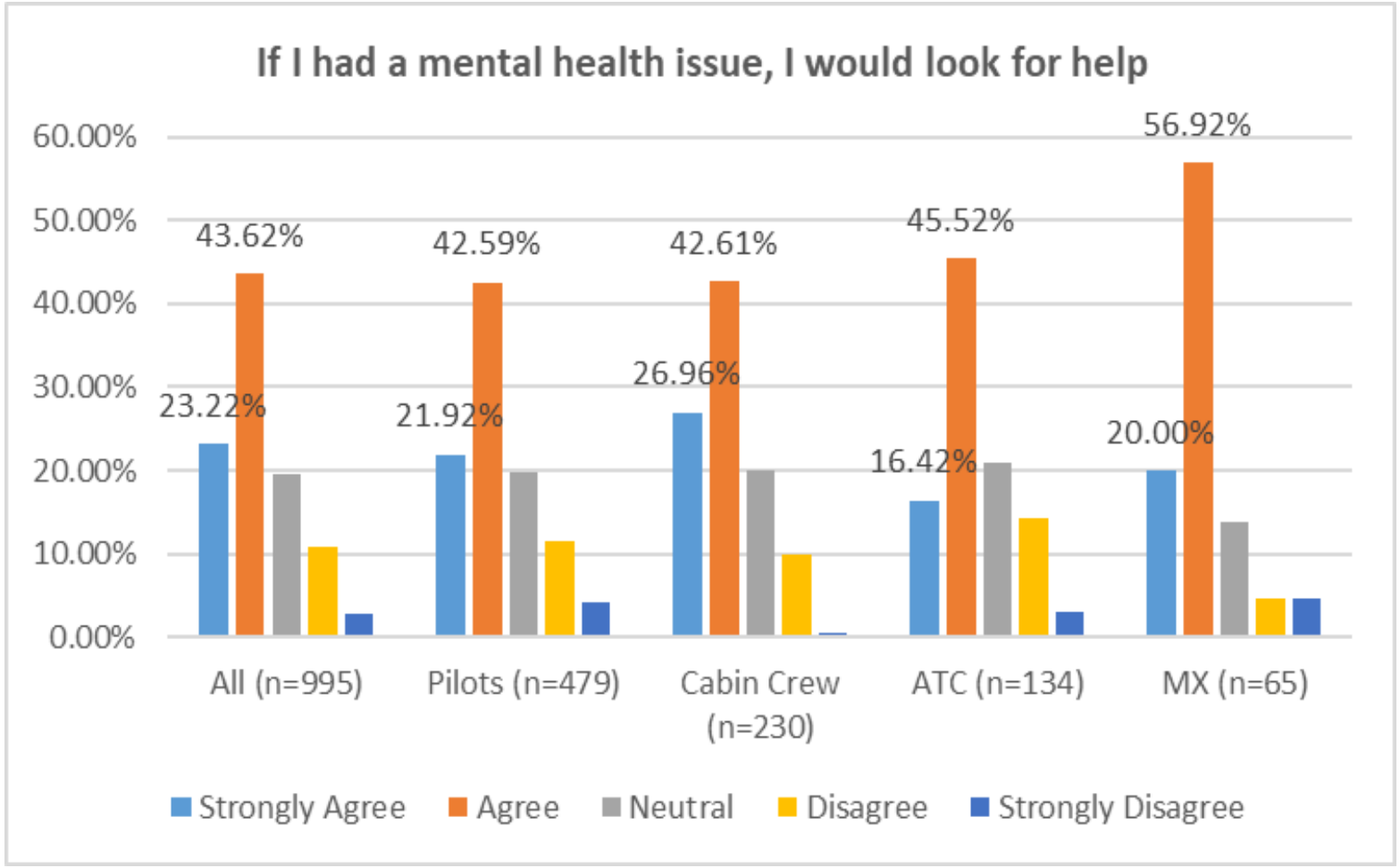


2021 Survey: Life Satisfaction/Happiness & Roles

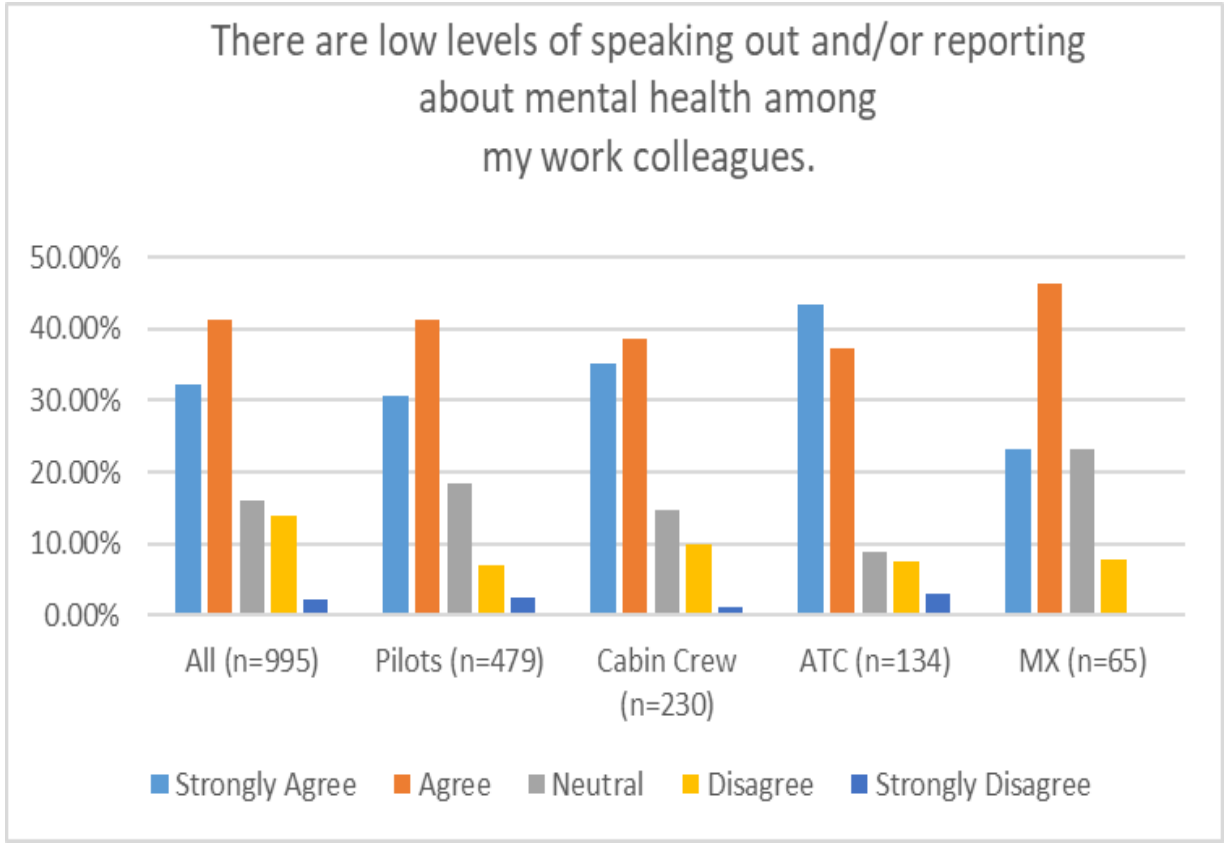


COVID Survey 2 (2021)
Disclosure & Attitudes to MH

Disclosure & Attitudes to MH

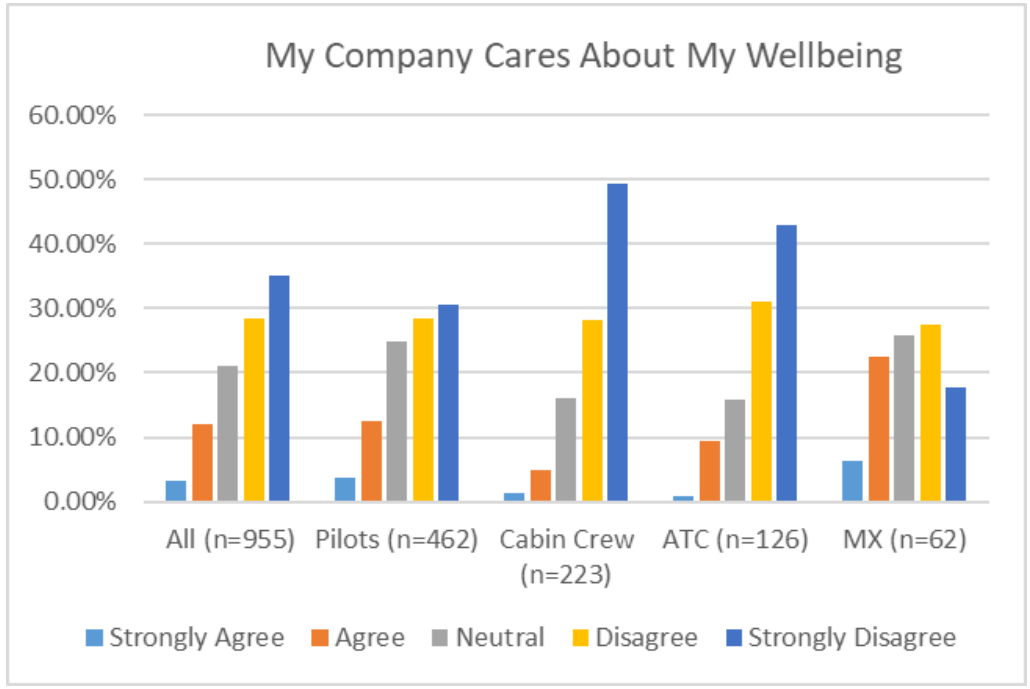


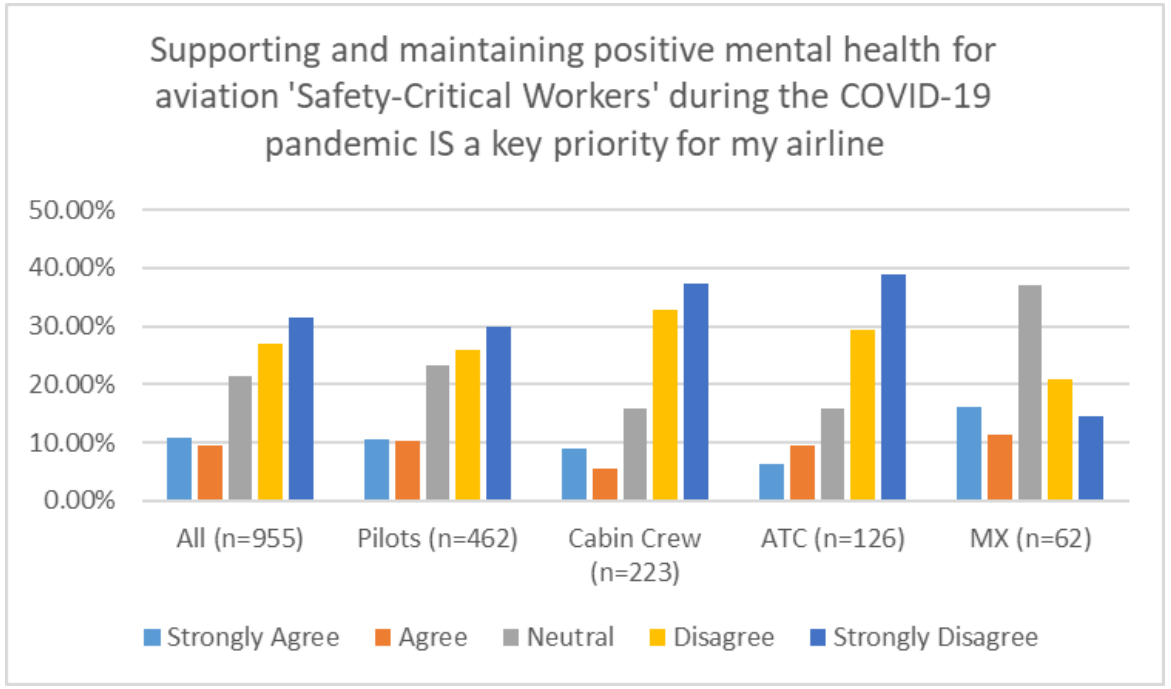
Disclosure & Attitudes to MH



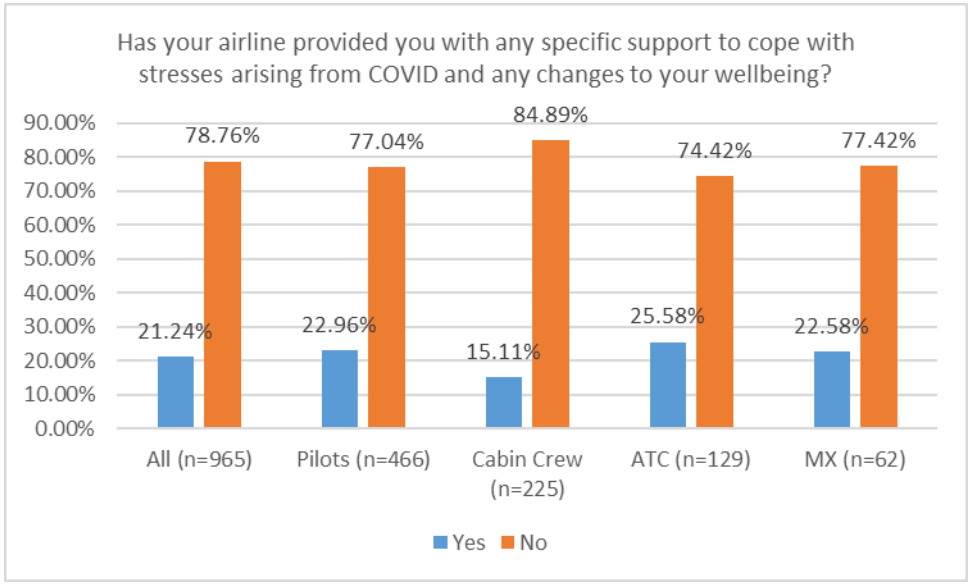
COVID Survey 2 (2021)
Org Culture, Priorities & Supports Provided

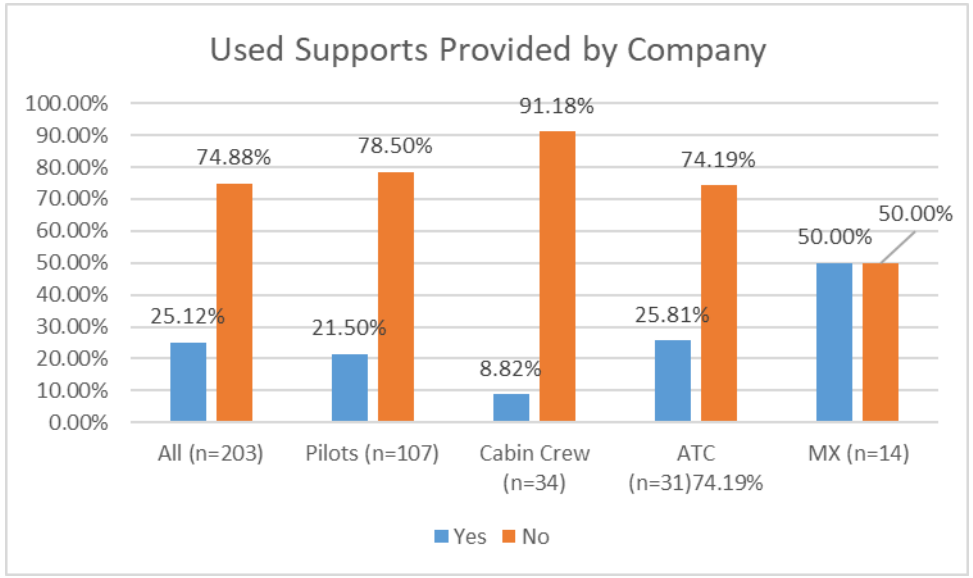
Org Culture & Priorities





Org Wellness Culture & Supports Provided

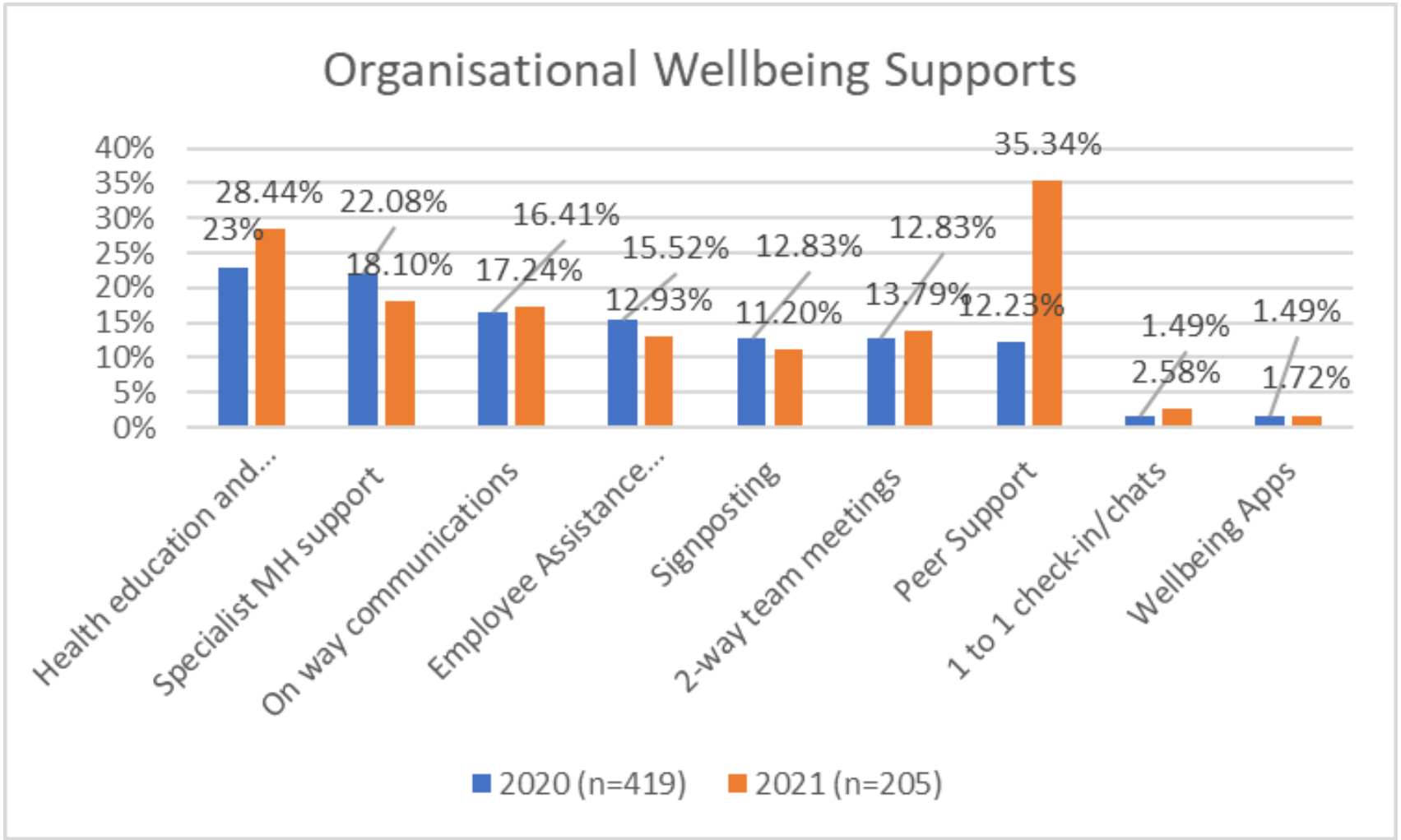




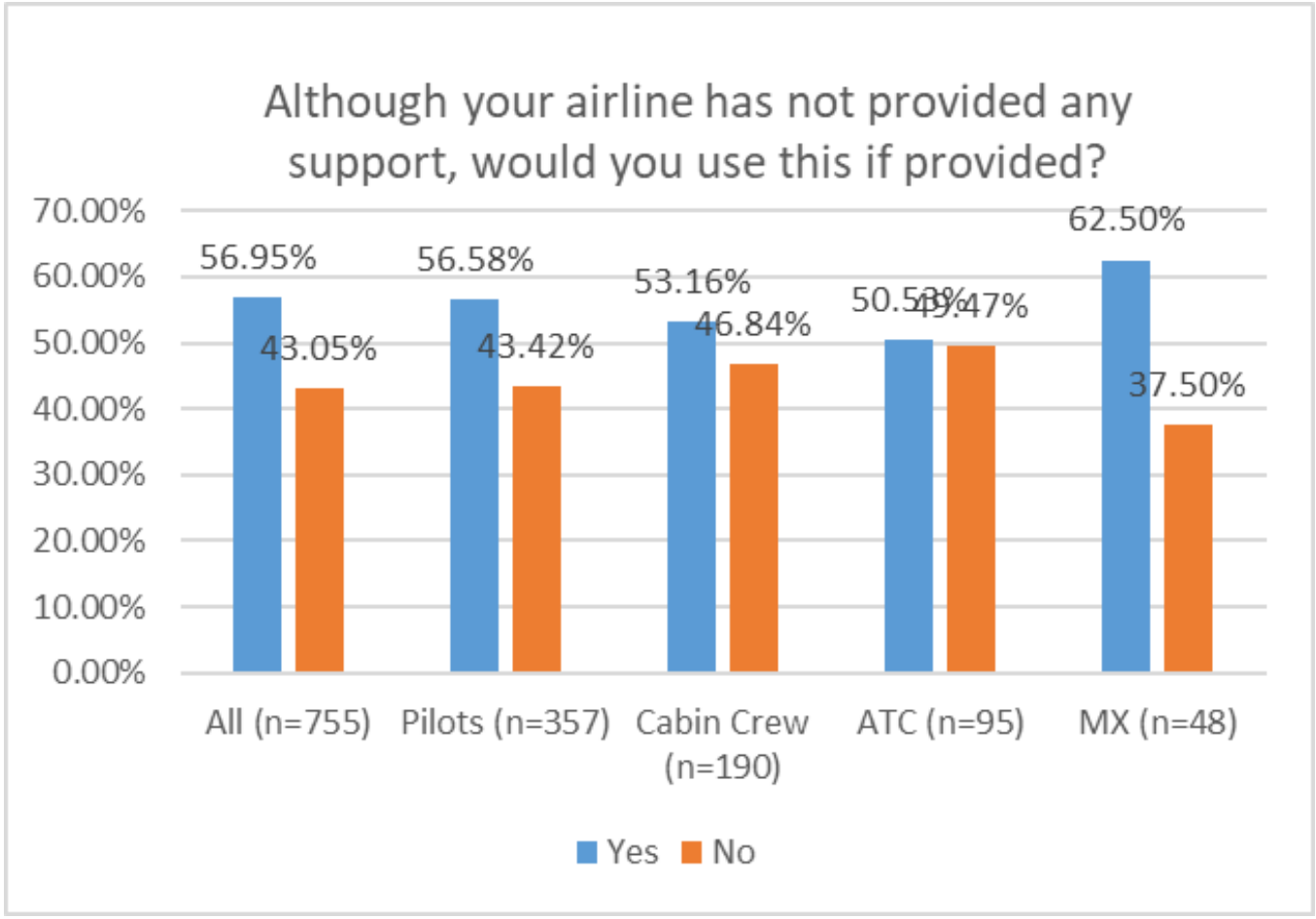
Org Wellness Culture & Supports Provided

Frequency Ranking	2021	Type	Category
1	35.34% (n= 41)	Peer Support	Tertiary
2	28.44 (n=33)	Health education and training	Secondary
3	18.10% (n=21)	Specialist MH support	Tertiary
4	17.24% (n=20)	One-way emails/communications promoting wellbeing	Secondary
5	13.79% (n=16)	2-way team meetings to communicate updates and provide feedback/support	Secondary
6	12.93%(n=15)	Employee Assistance Program (internal/external)	Tertiary
7	11.2% (n=13)	Signposting (internal/external)	Secondary
8	2.58% (n=3)	1 to 1 check-in/chats	Secondary
9	1.72, (n=2)	Wellbeing Apps	Primary
10	1.72, (n=2)	Exercise Class	Primary

Org Wellness Culture & Supports Provided

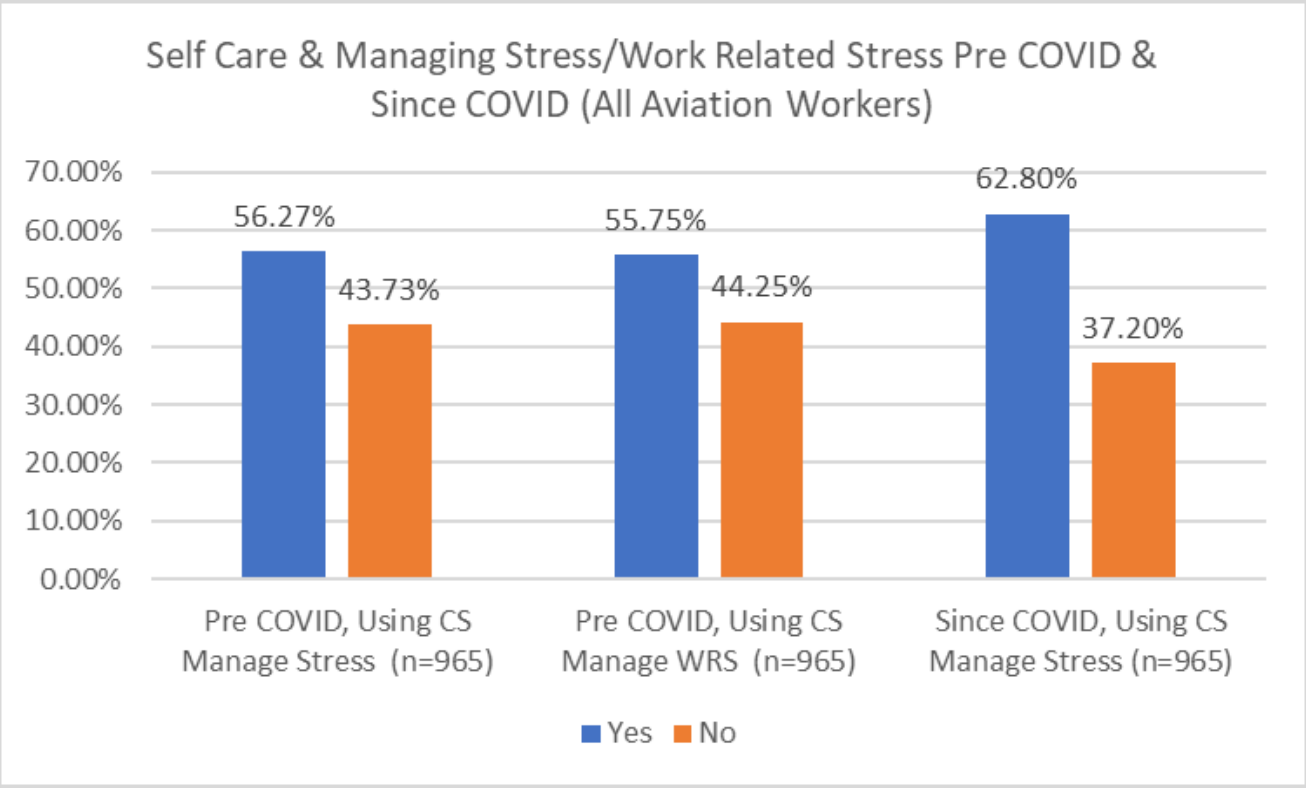


Org Wellness Culture & Supports Provided

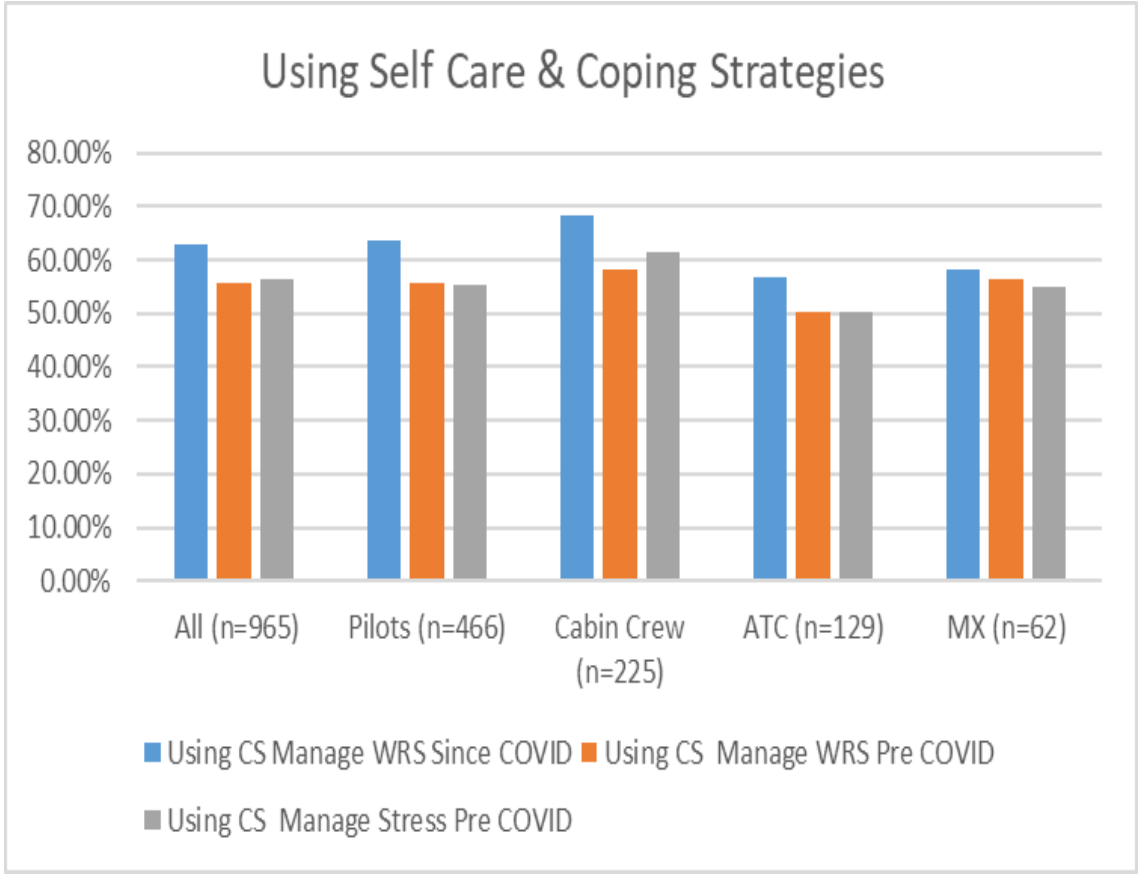


COVID Survey 2 (2021)
Self Care & Coping

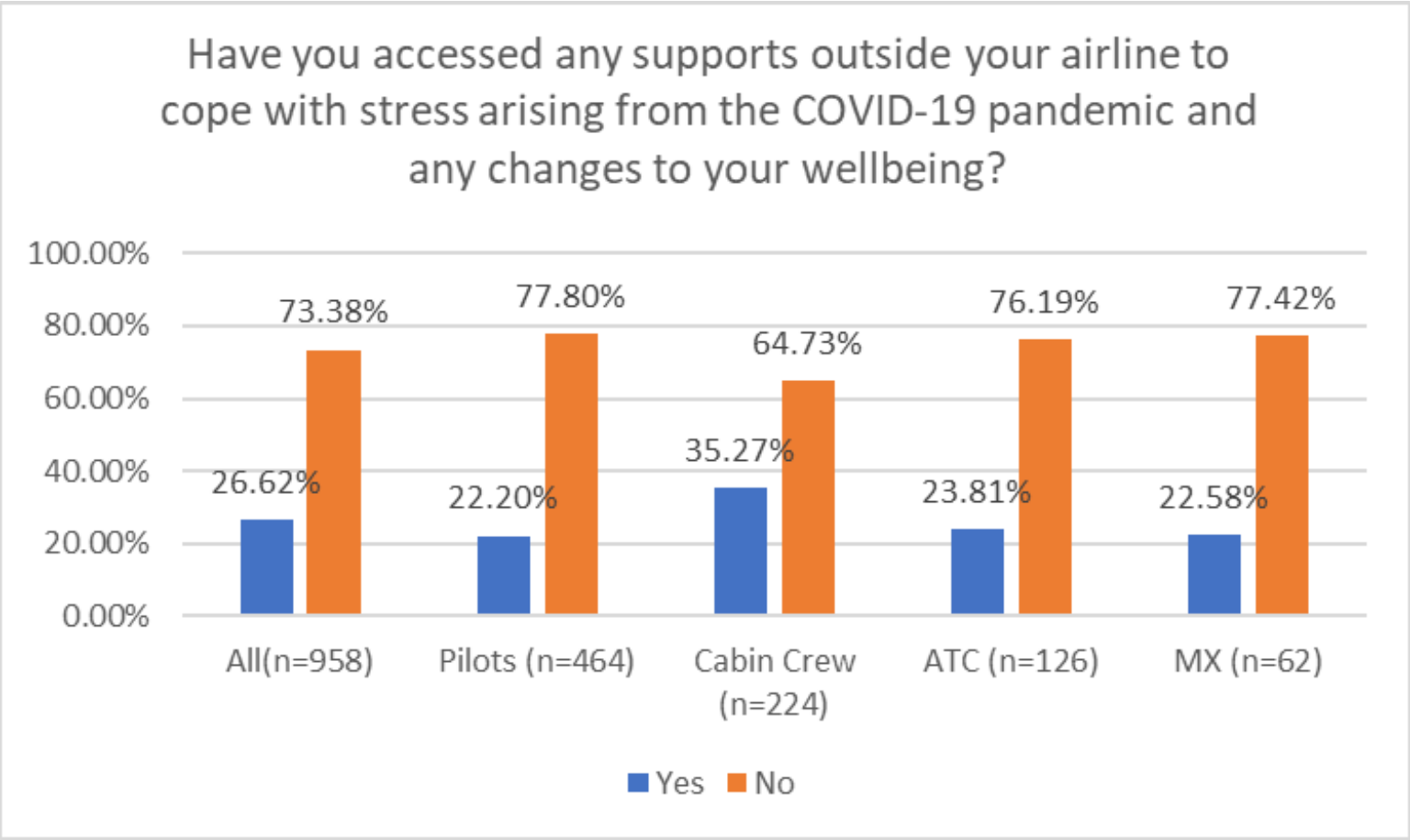
Self Care & Coping Strategies



Self Care & Coping Strategies

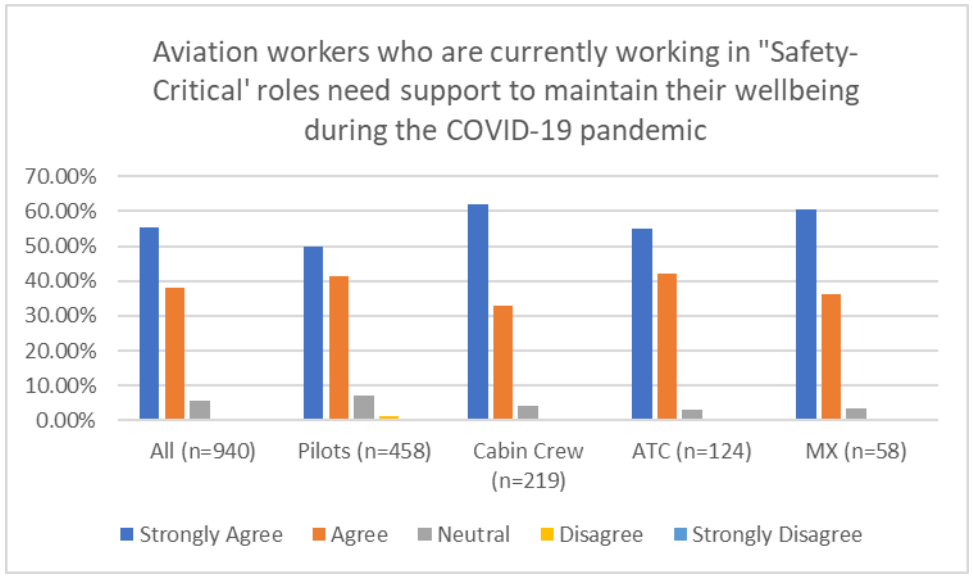


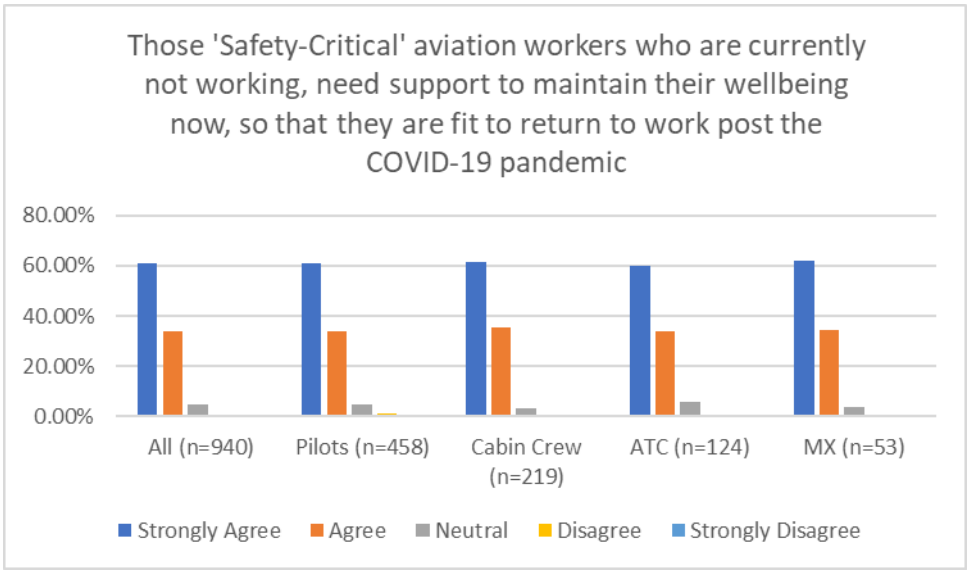
Outside Supports



COVID Survey 2 (2021)
Need for Supports

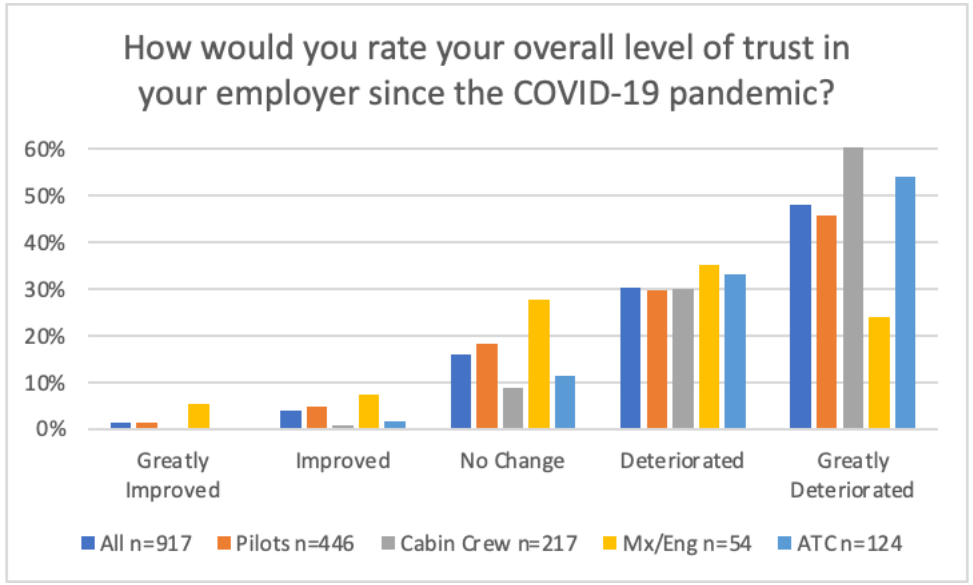
Need for Supports

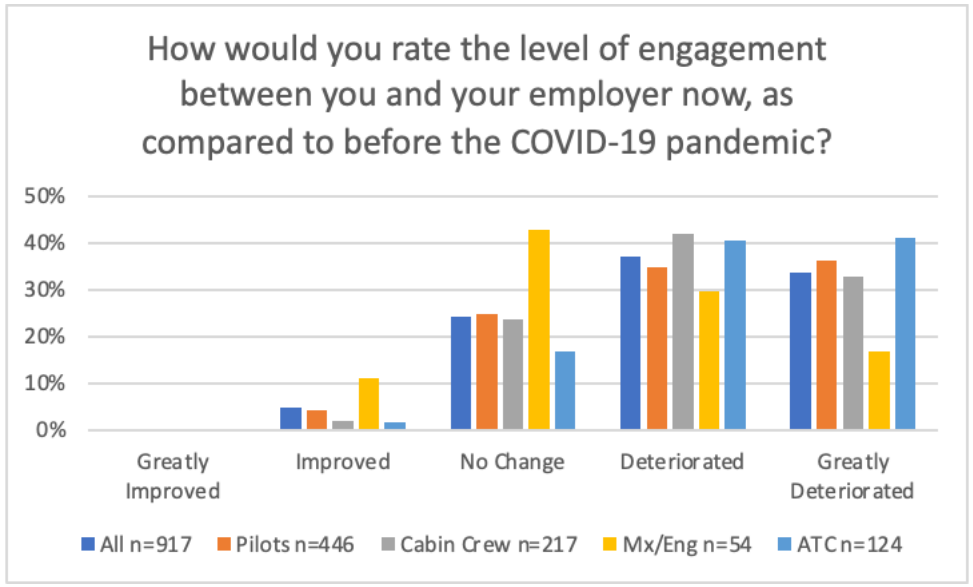


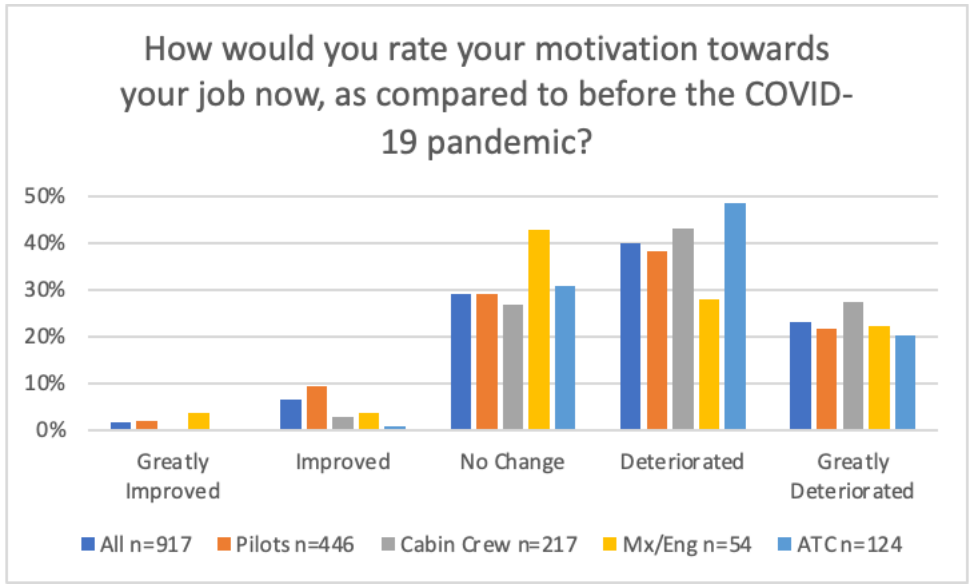


COVID Survey 2 (2021)
Trust, Engagement, Motivation & Talking About MH

Trust, Engagement & Motivation

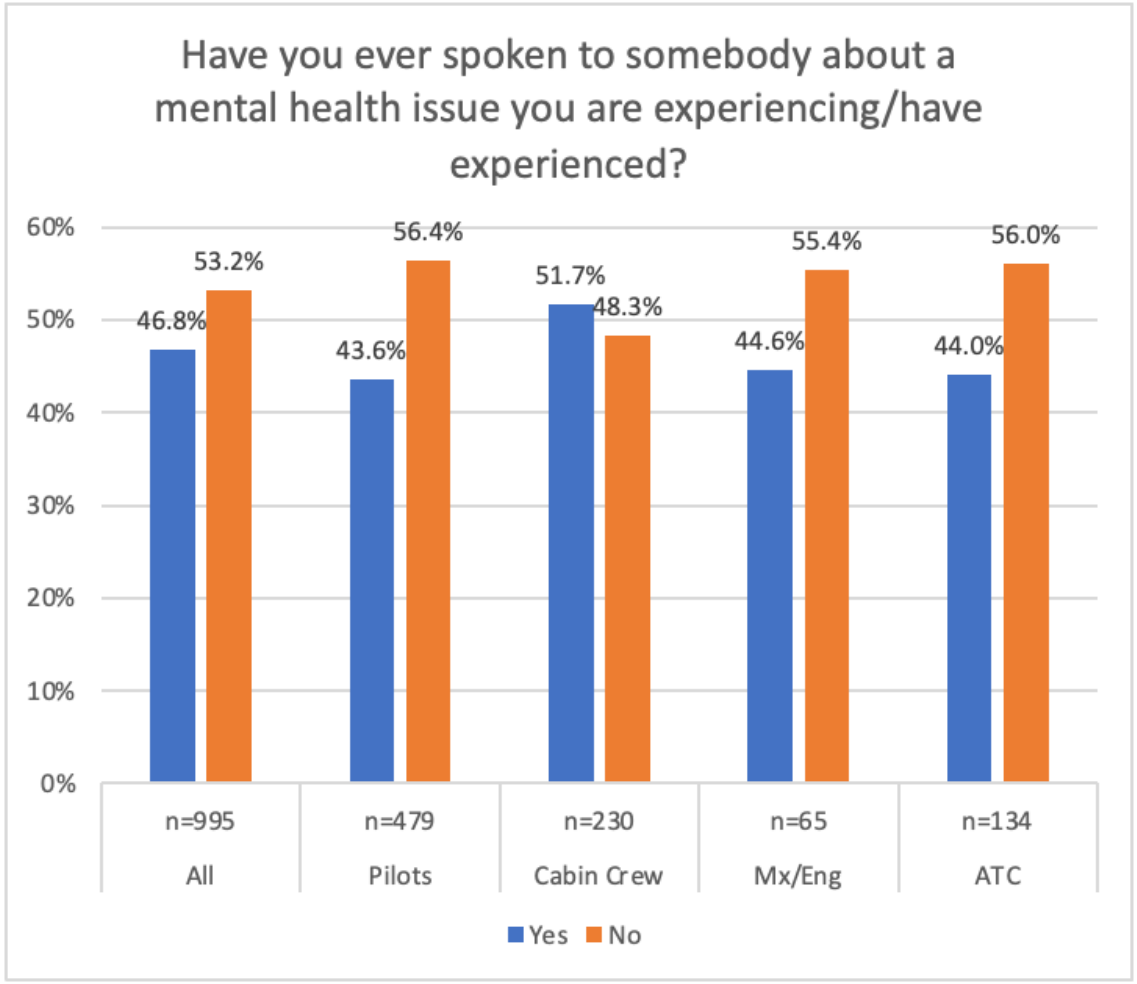




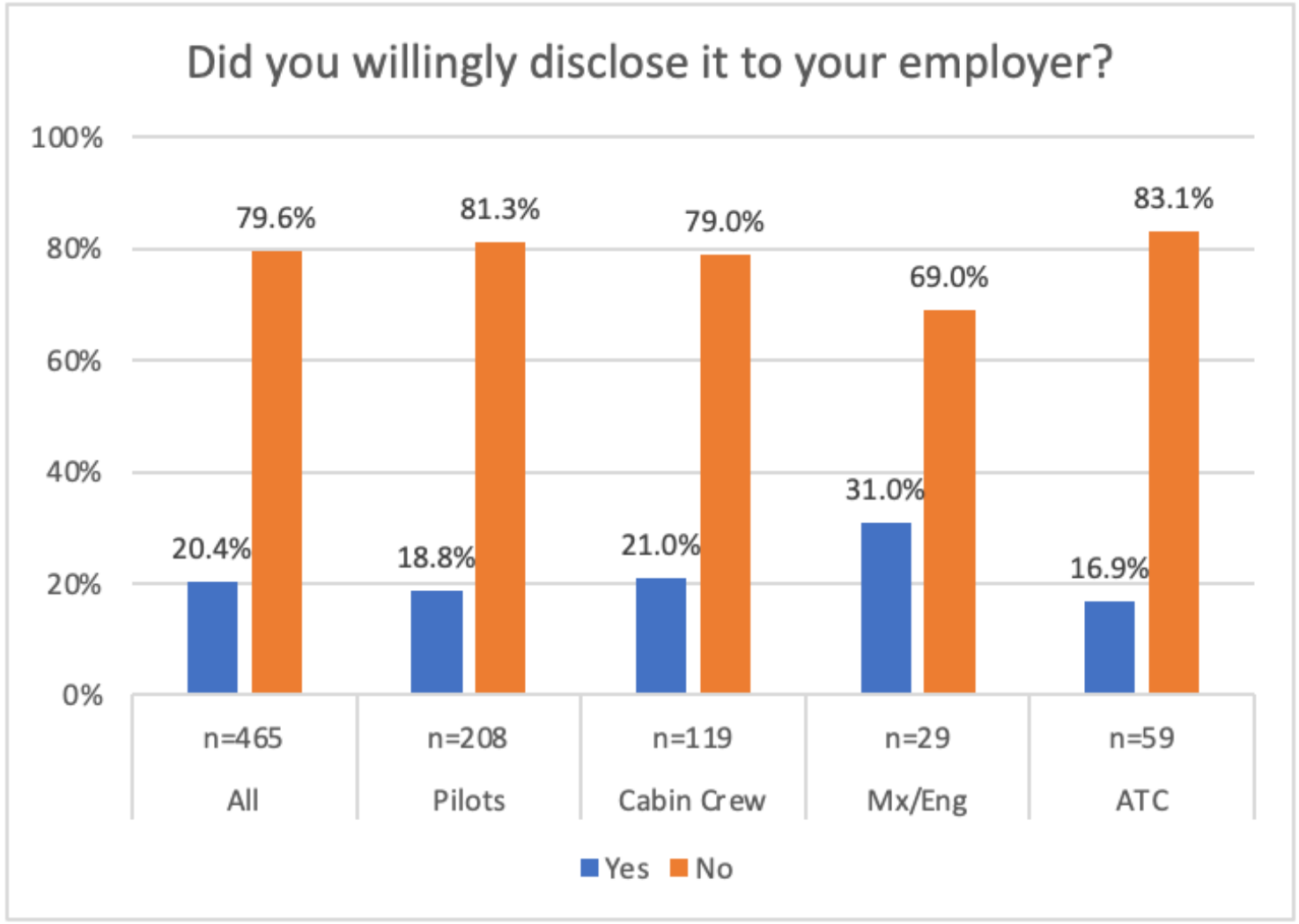


Talking About MH

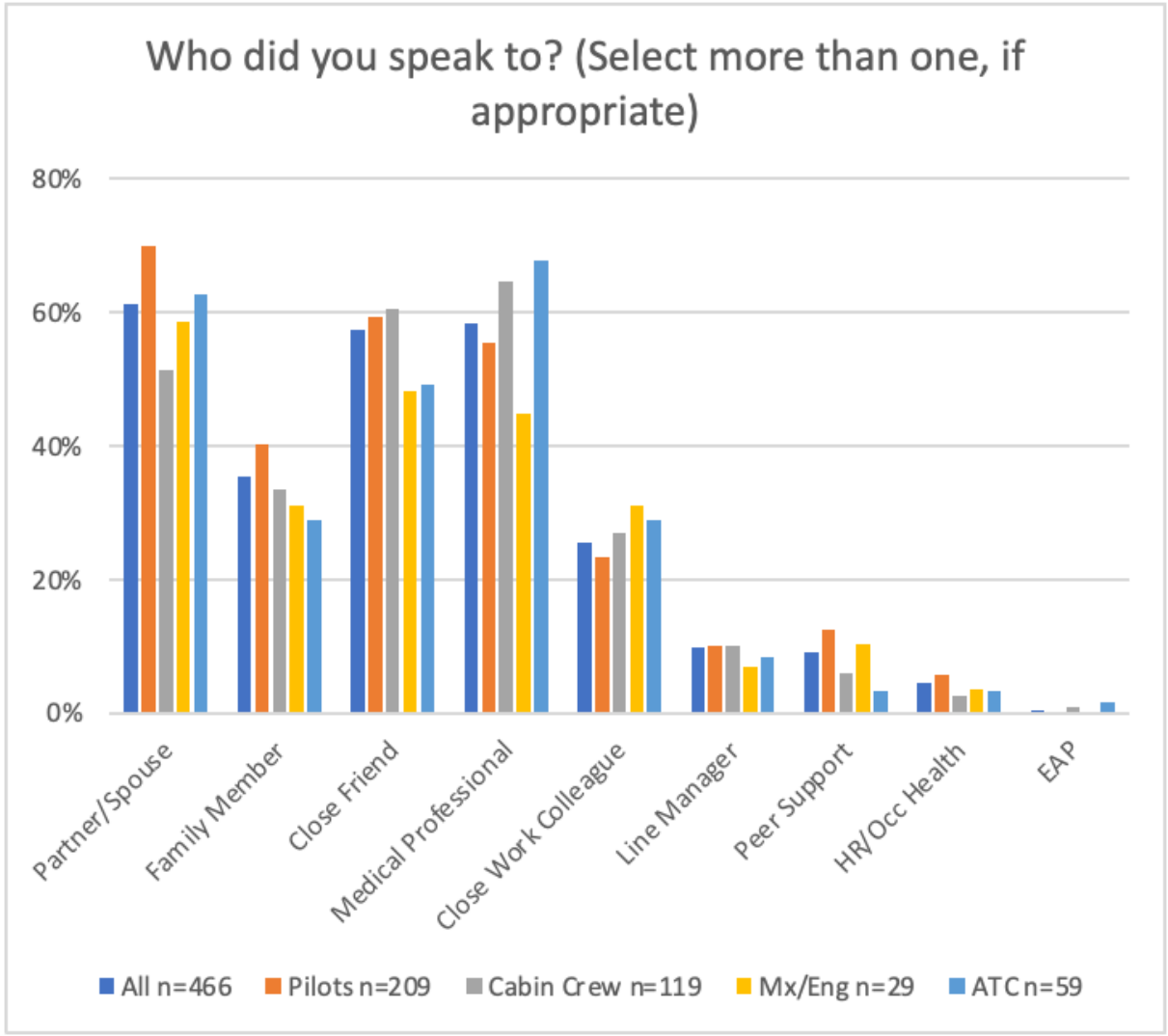
Talking about Mental Health



Did You Willingly Disclose to Employer



Who Did You Speak To



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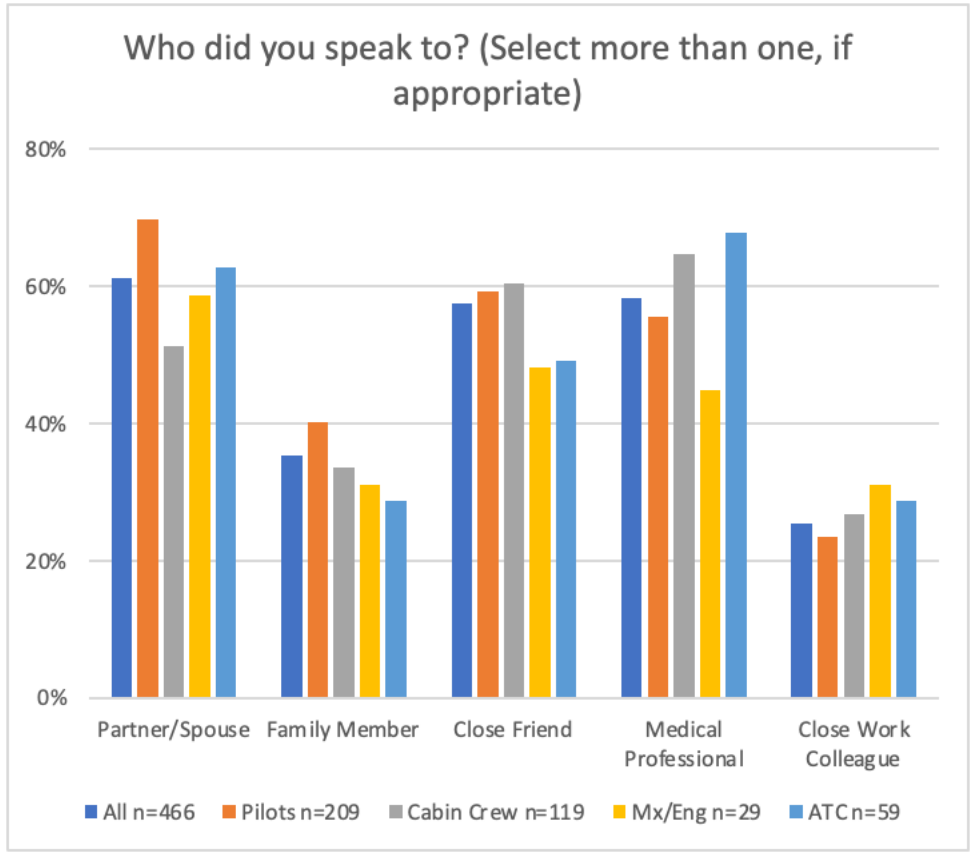
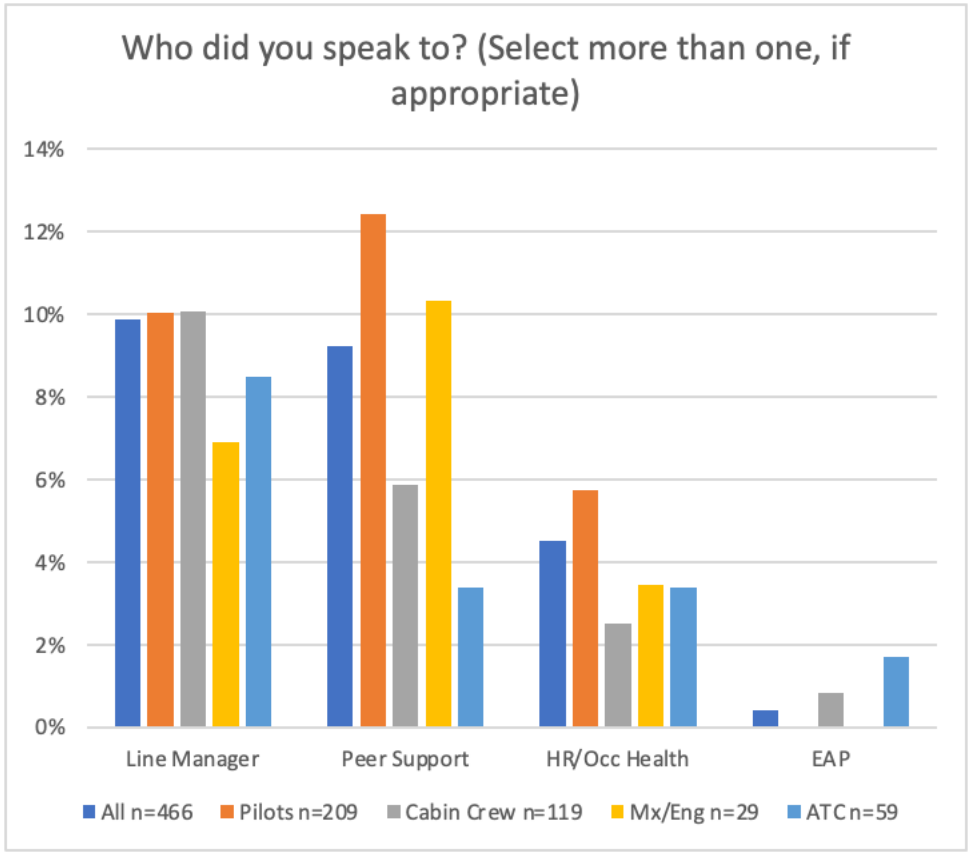
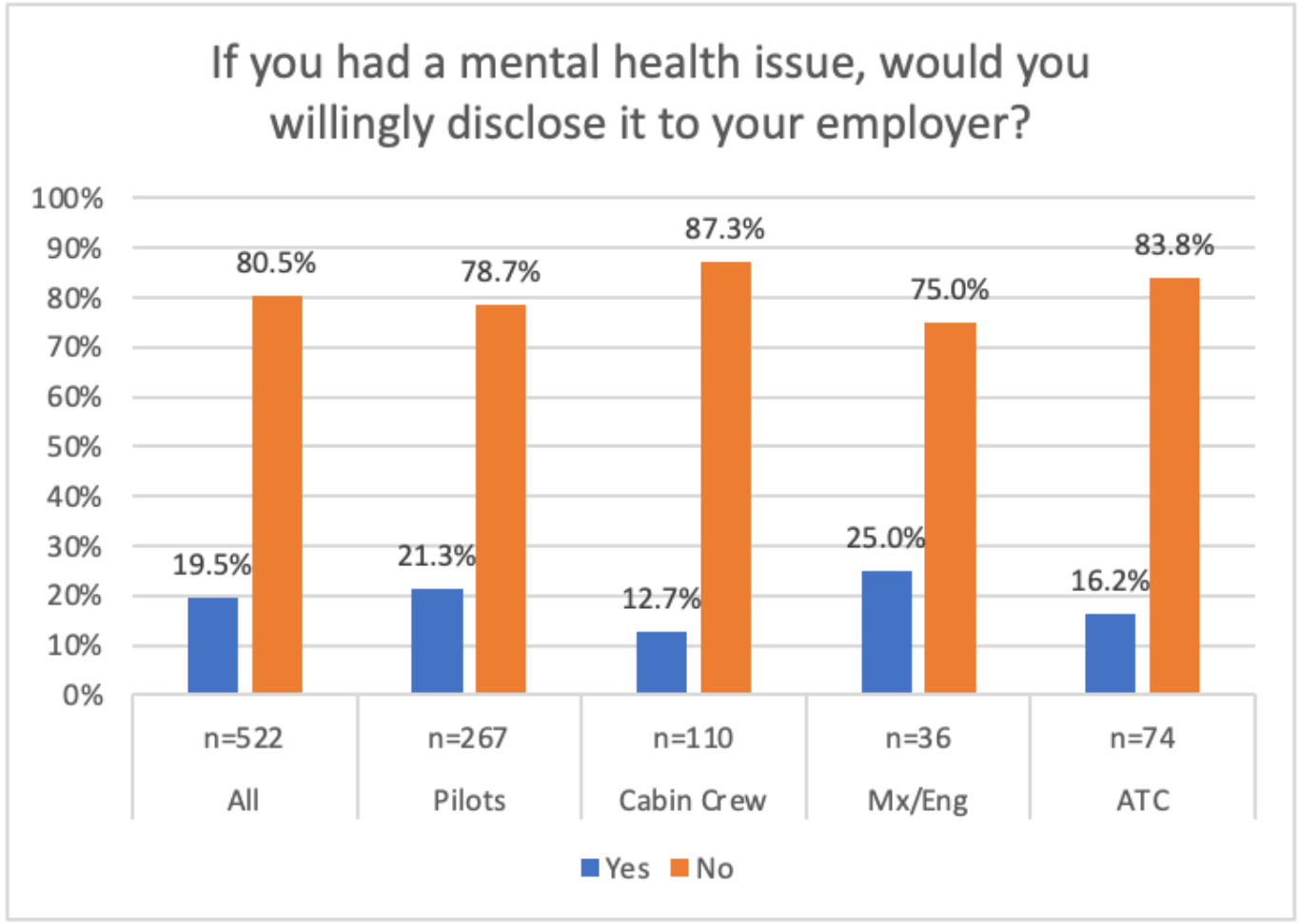
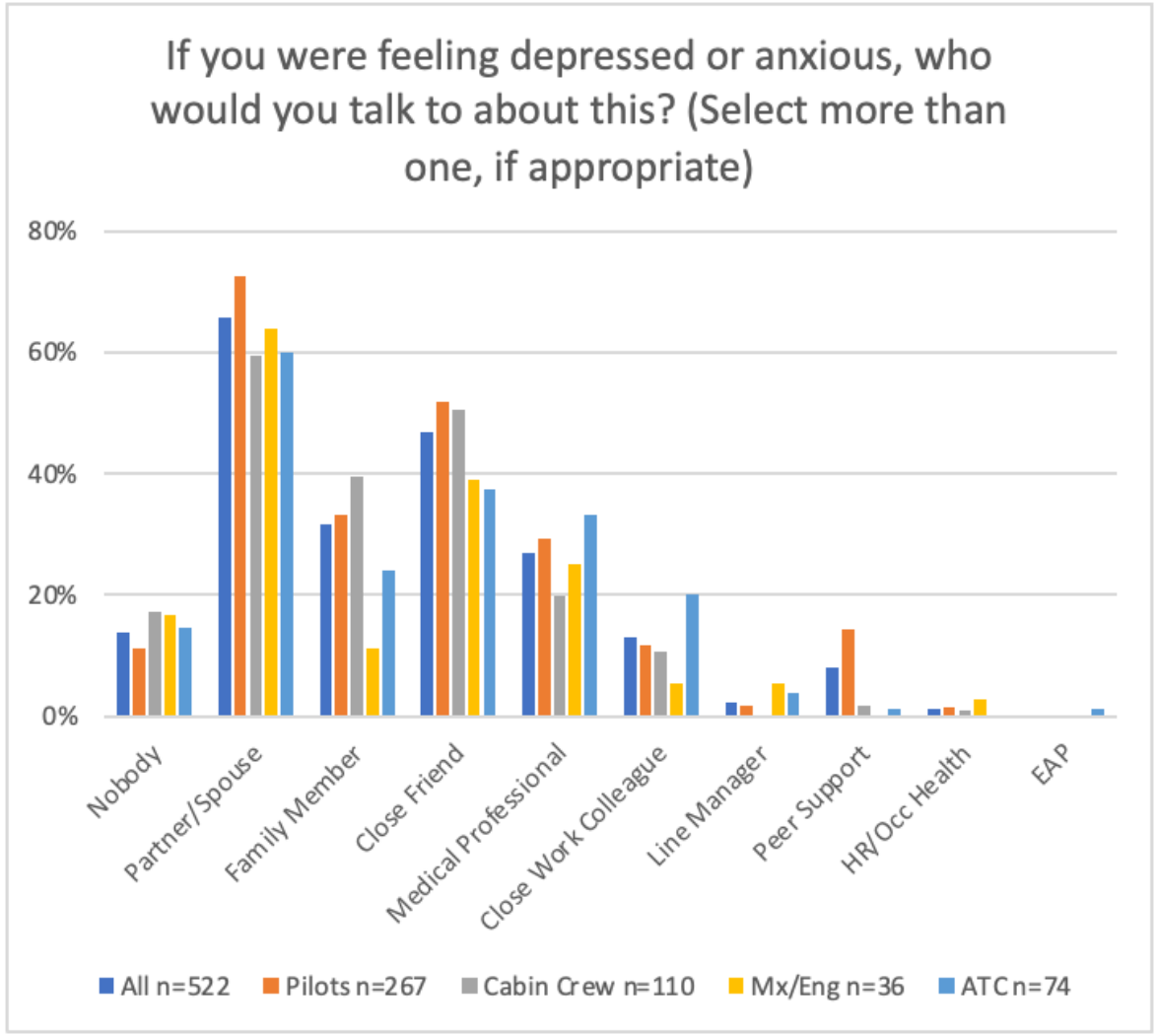




Would You Willingly Disclose To Employer



Who Would You Talk To



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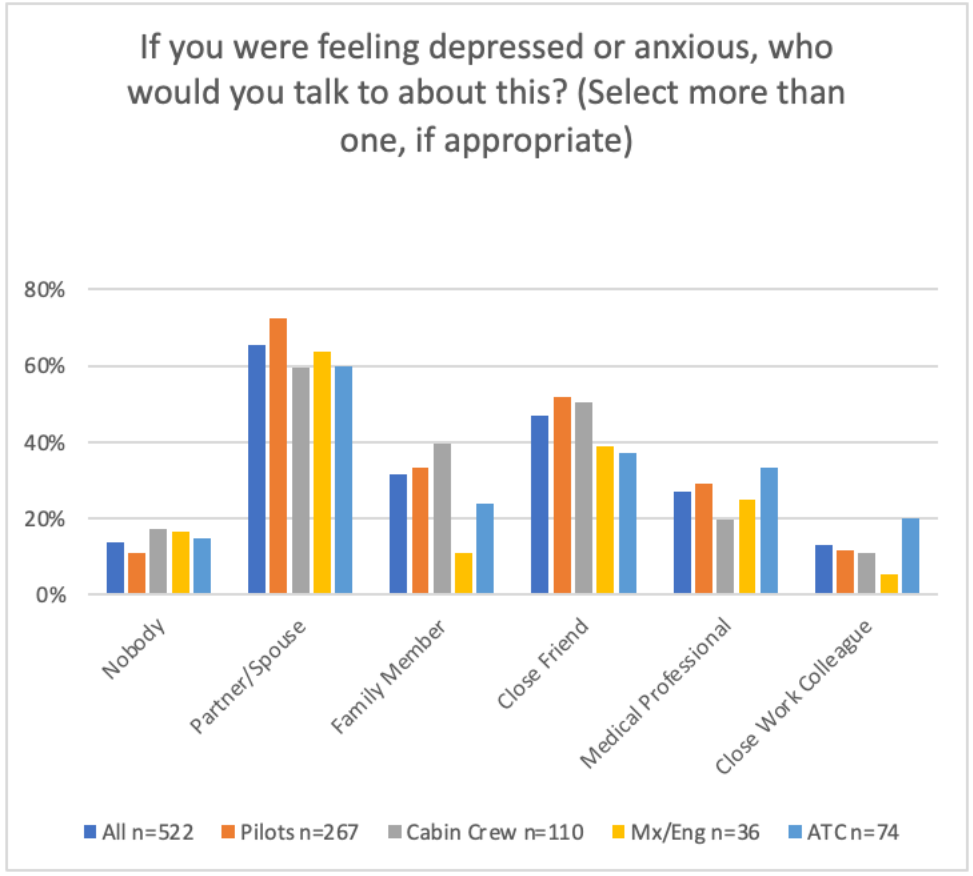
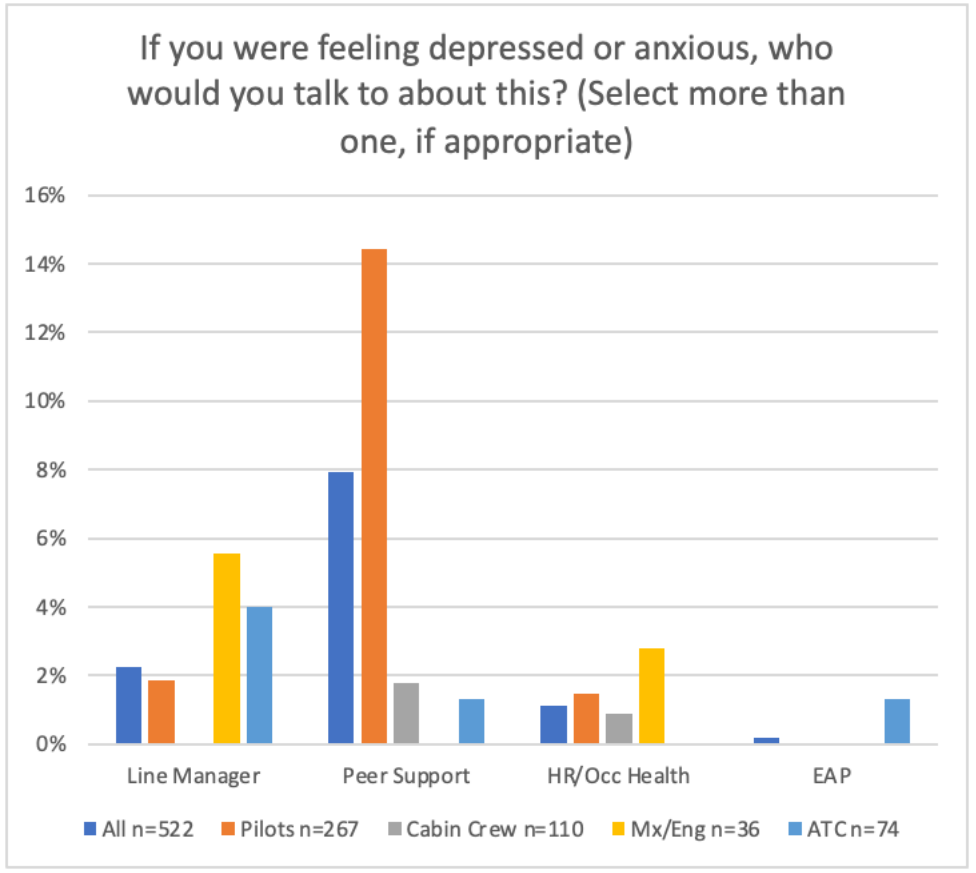
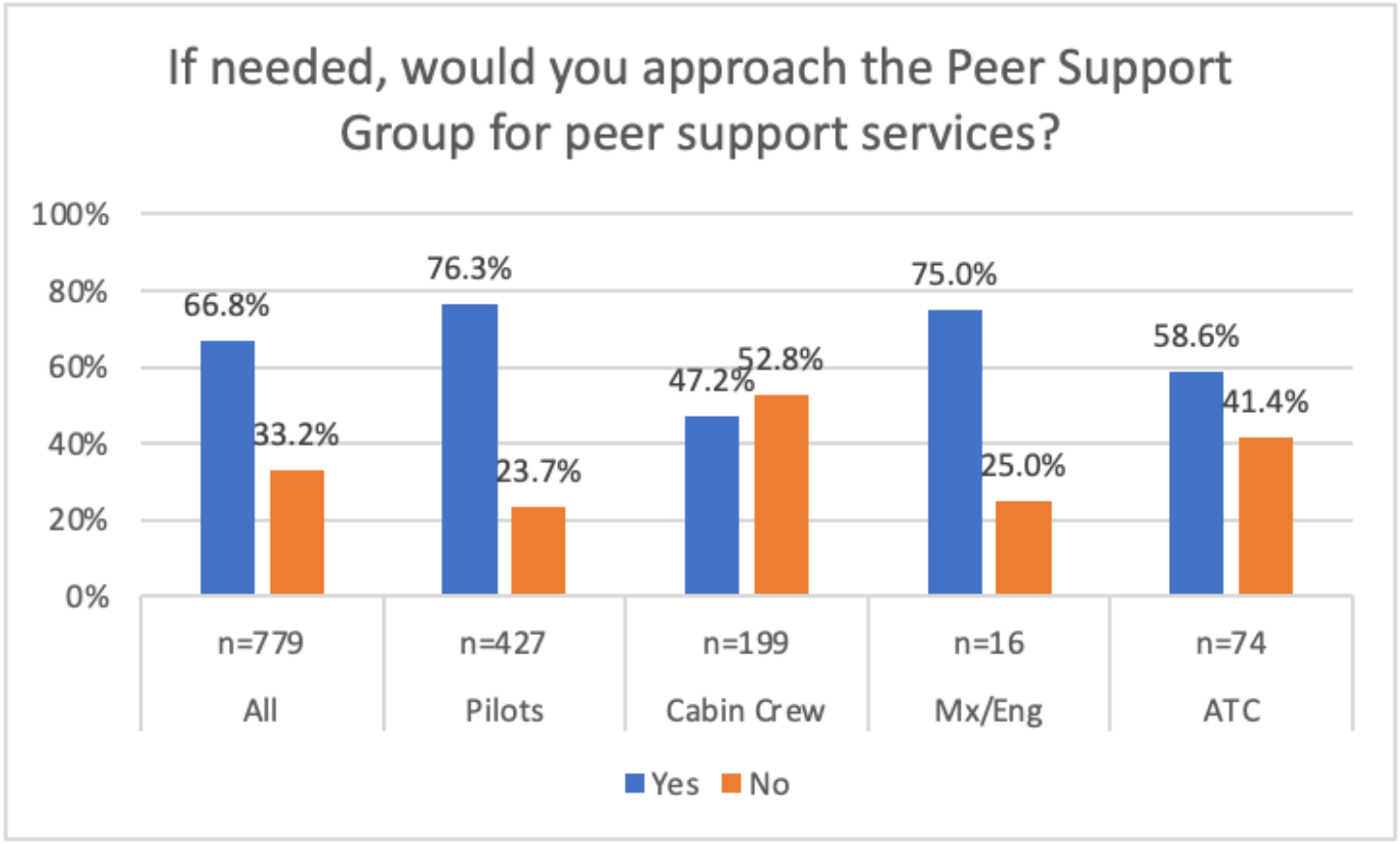




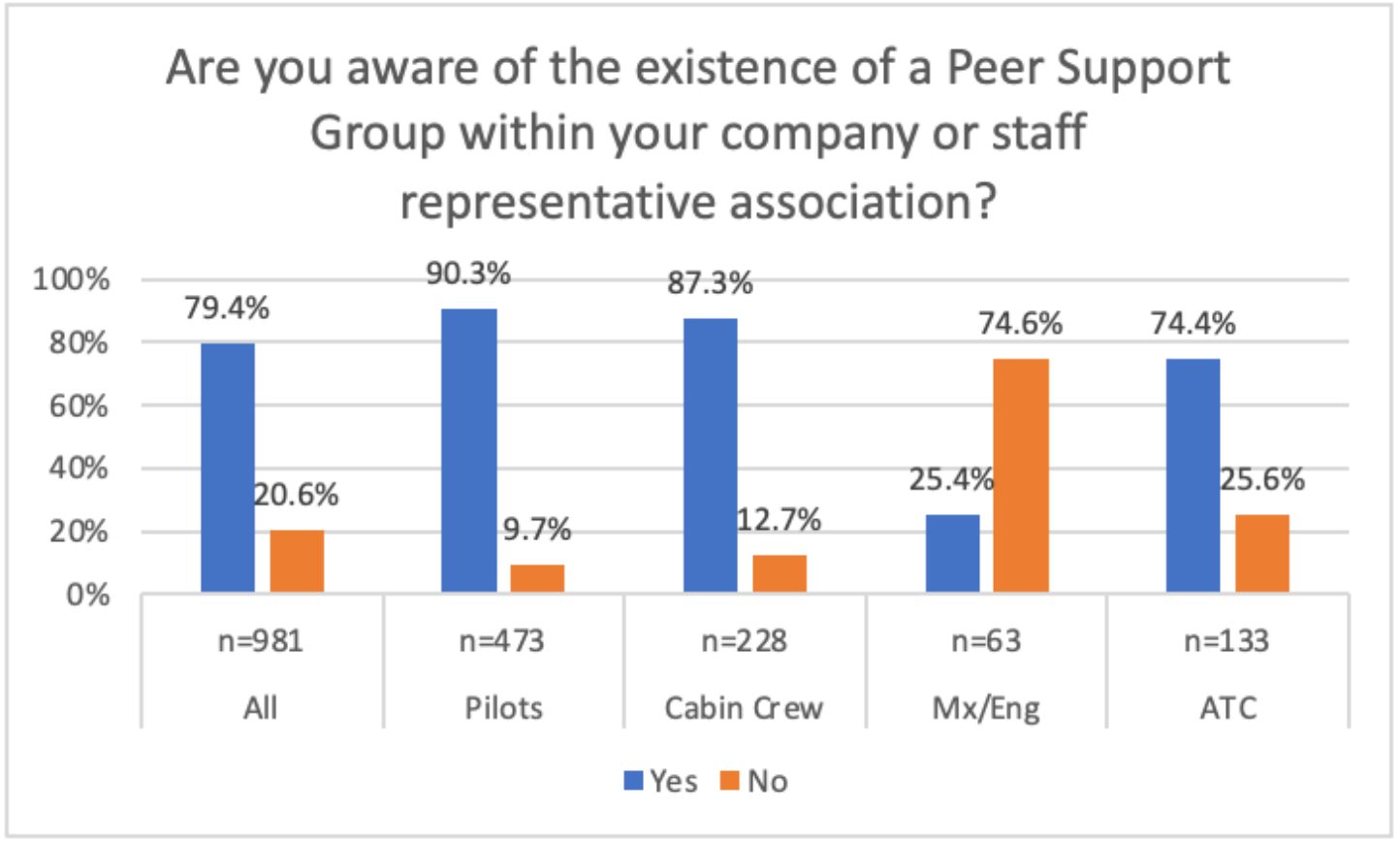
Note: With the exception of pilots, more respondents reported that they would talk to nobody rather than use PSP. The picture is slightly better for pilots, with 14% reporting they would speak to PSP, while 11% would speak to nobody.

COVID Survey 2 (2021)
Peer Support

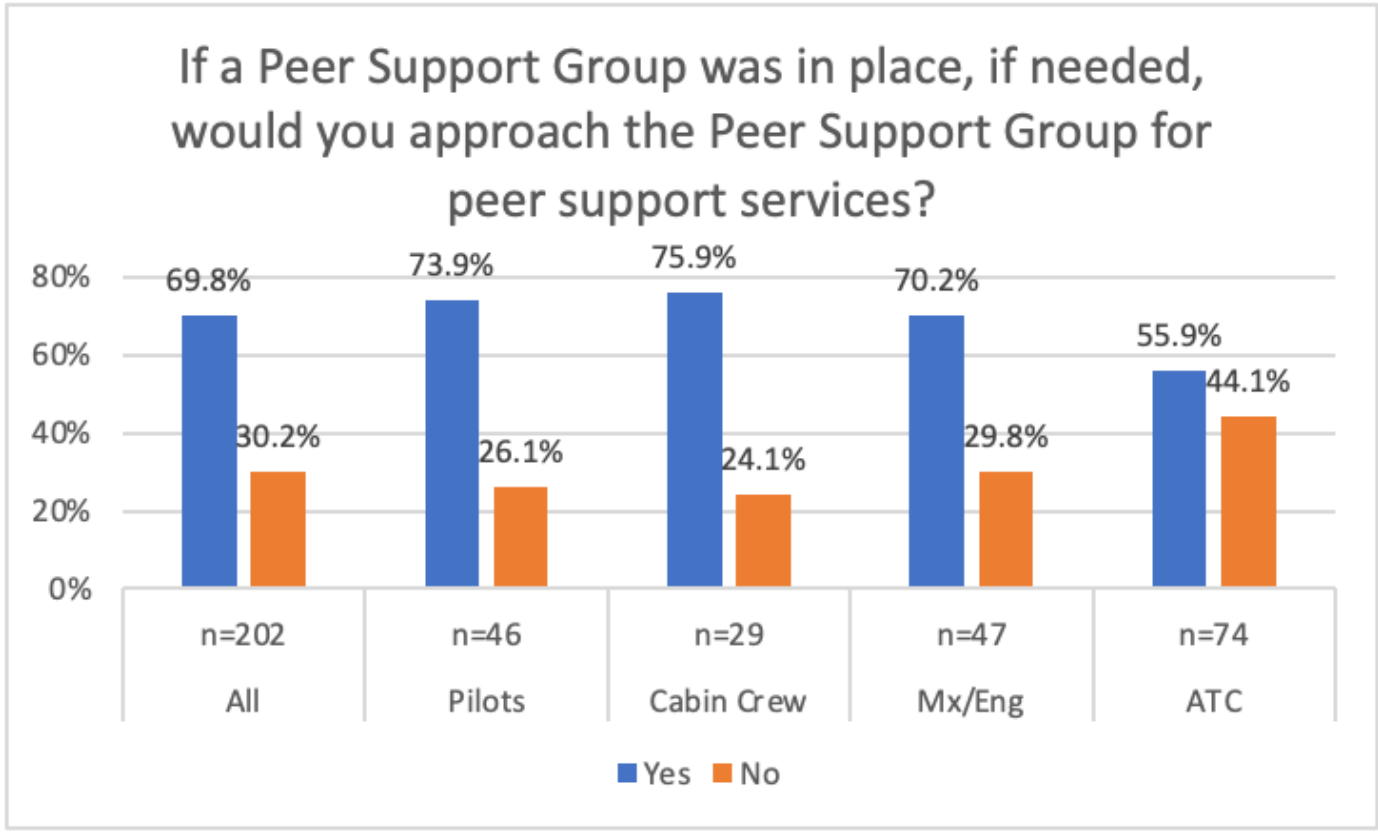
If Needed, Approach Peer Support

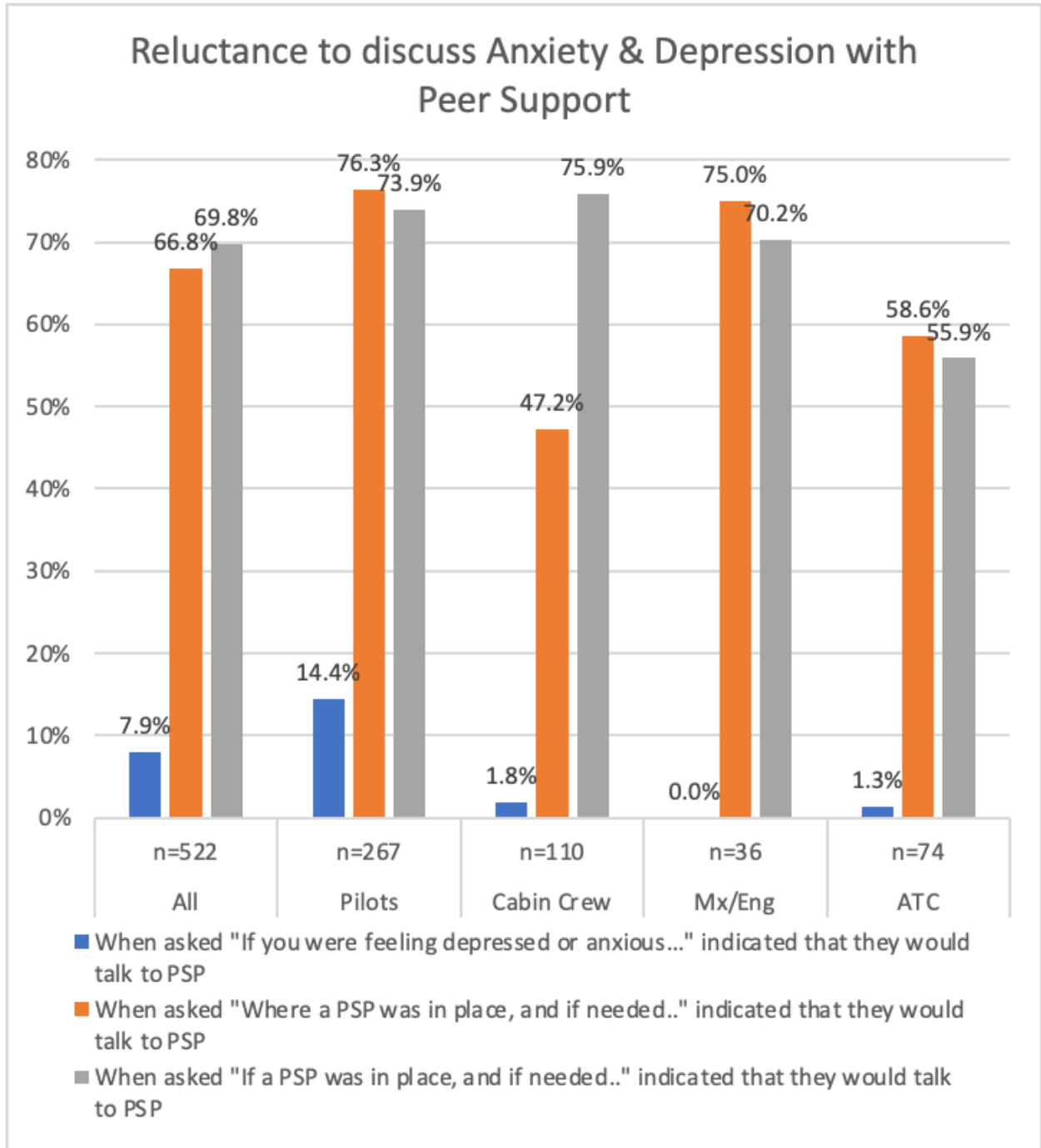


Aware of Existence of Peer Support



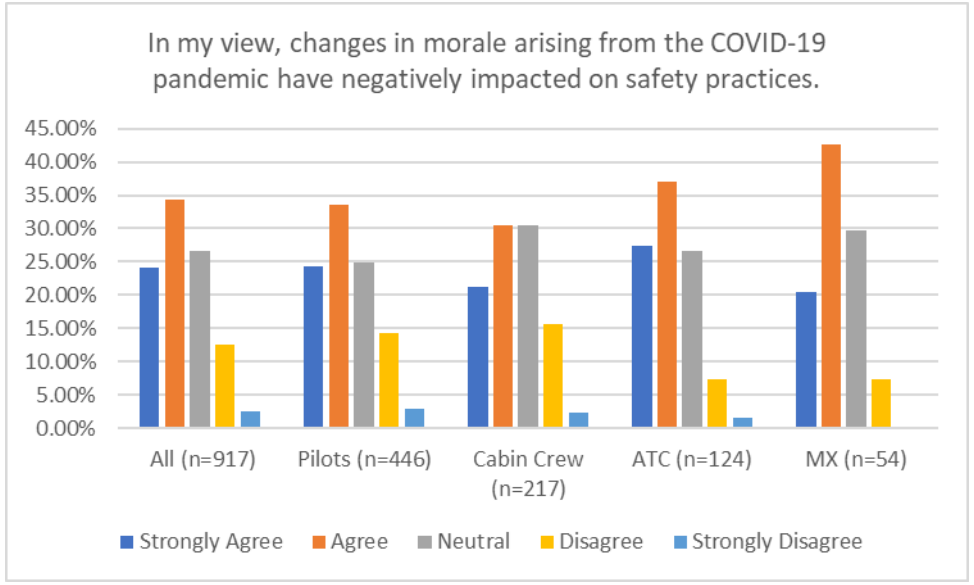
If in Place, Would You Use

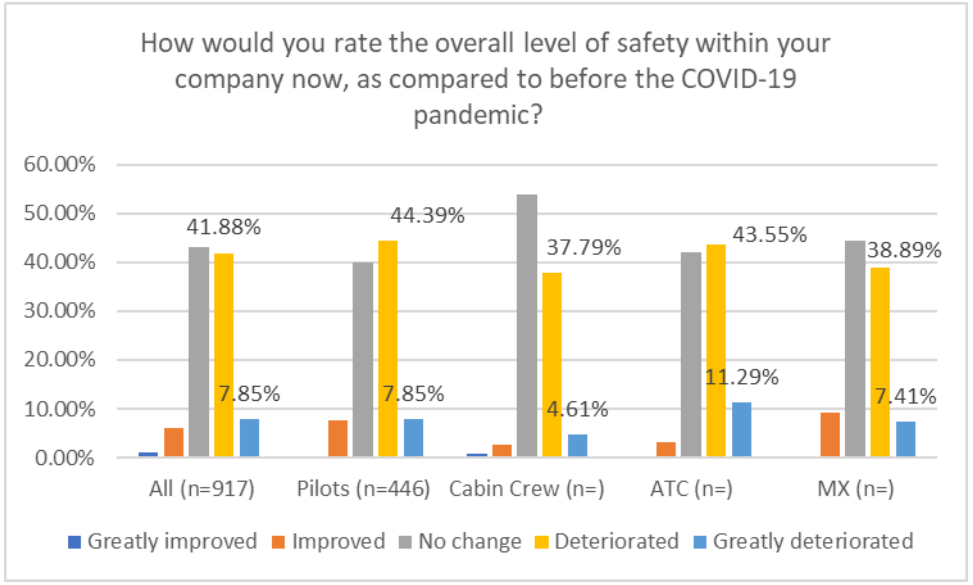



Reluctance to discuss Anxiety & Depression with Peer Support
80%
70%
60%
50%
40%
30%
20%
10%
0%
7.9%
66.8%
69.8%
14.4%
76.3%
73.9%
1.8%
47.2%
75.9%
0.0%
75.0%
70.2%
1.3%
58.6%
55.9%
n=522
All
n=267
Pilots
n=110
Cabin Crew
n=36
Mx/Eng
n=74
ATC
When asked "If you were feeling depressed or anxious..." indicated that they would talk to PSP
When asked "Where a PSP was in place, and if needed.." indicated that they would talk to PSP
When asked "If a PSP was in place, and if needed.." indicated that they would talk to PSP

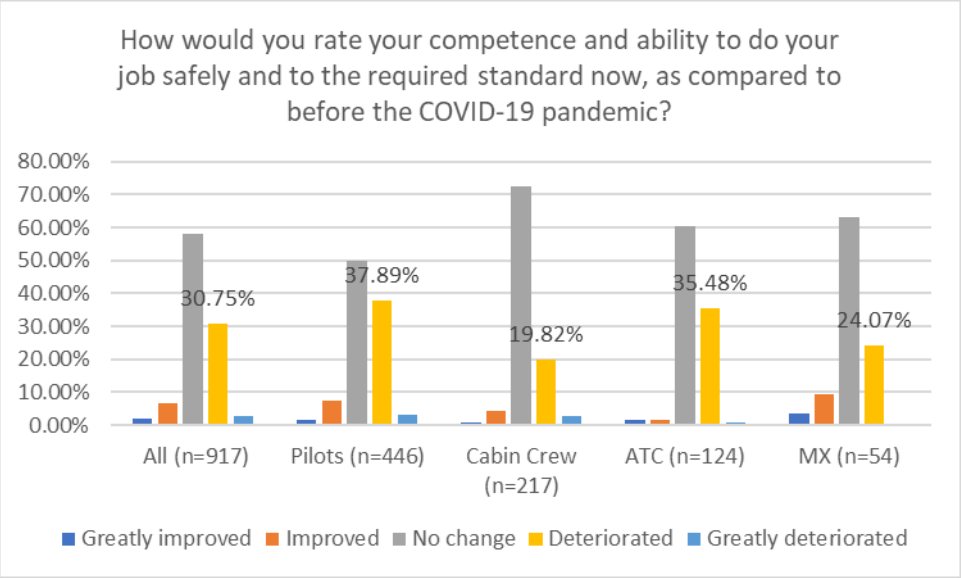
COVID Survey 2 (2021) Wellbeing, Performance & Safety Impact

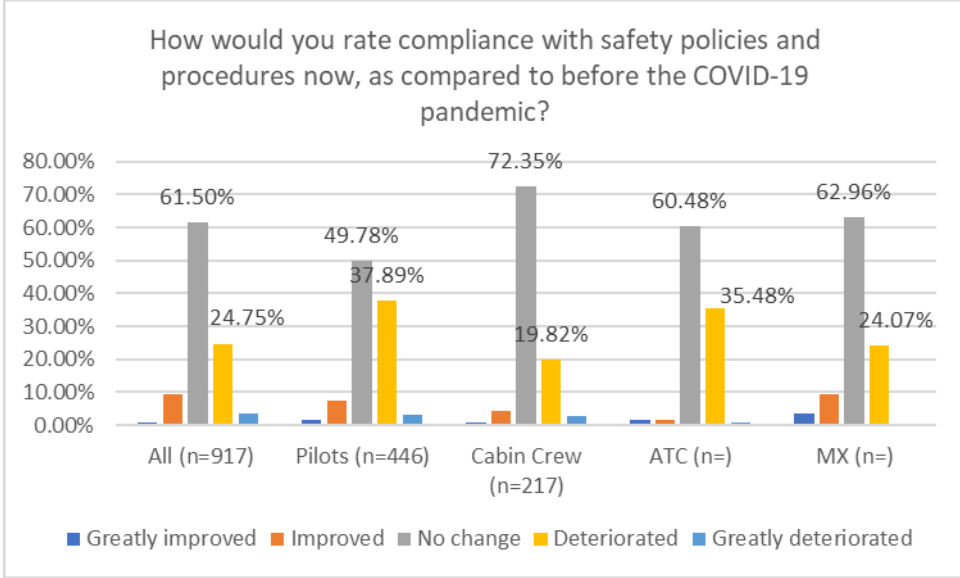
Wellbeing, Performance & Safety Impact





Wellbeing, Performance & Safety Impact





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Lived Experience
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