Men are less likely to talk about mental health or engage in mental health seeking behaviour

Authors: Angel Obireozie, Ben Ayomidele, Maria Johnson, Rahma Said, Safia Nasuuna, Salima El Haj, Yeanie Lamin, Zeynab Caba

Group Number: 4

Introduction

Good mental health is prevalent to living a happy life as it affects every aspect: our emotions, social interactions, and psyche. With this in mind, we must turn our head to the growing problem of mental health within our society – a shocking 13% increase of cases within the last decade (Mental health, 2021). Out of the world population around 20% of all children and adolescences are believed to have a mental health condition and suicide is the second cause of death among 15–29-year-olds (Mental health, 2021).

As individuals who fit into this demographic, we were inspired to pick a project that was close to home and something we are all passionate about. Having just come out of three lockdowns, our nation had to come to grips with the loss of freedom in things we took for granted and the changes in our daily lives. In a survey of over 1,000 mental health doctor's it was reported that 43% have seen an increase in emergency cases following the pandemic (RC PSYCH, 2021). The social isolation, financial pressures and health risks of the coronavirus crisis has had a massive negative impact on people's mental health.

When picking a specific area to focus our research on we decided that mental health within the workplace was an important niche that deserved attention. Again, this was an area we felt passionate about as young adults just beginning our careers.

From background research, it is evident that there is stigma around mental health in the workplace. For example, a journal published in 2009 suggests employers discriminated against people with mental health problems due to a belief of their incompetence and unpredictable behaviour (Krupa, Kirsh, Cockburn and Gewurtz, 2009). However, this can be significantly reduced with the right intervention. A 2016 article surveyed managers before and after a mental health workshop and showcased a significant reduction in the stigma towards depression (Hamann et al., 2016).

We hope to investigate if mental health help is made available by employers and if so, how comfortable do employees feel about seeking help. Does this change with age and geographical location?

Data Exploration

The data we used was obtained in 2014 via a survey. The survey was designed to measure attitudes towards mental health and frequency of mental health disorders in the tech workplace. We specifically are analysing the responses to: treatment, seeking help, co-workers, supervisor, mental health consequence and remote work. In analysing these variables we feel we will get a holistic view of the disparities between men and women regarding mental health.

Methodology

Cleaning data

Throughout this project we used Excel and R to clean the data as well as analyse different parts of the data.

To clean the data in Excel, we used the command (=Proper(' cell number') ensuring that all text was in the same case. We then split gender into the following categories using the analyse data function.

Male: Cis Male, Cis Man, M, Mail, maile, Make, Mal, Male, Male (CIS), Malr, Man, msle

Female: Cis Female, cis-female/femme, F, femail, Femake, Female, Female (cis), Female (trans), Trans woman, Trans-female, Woman

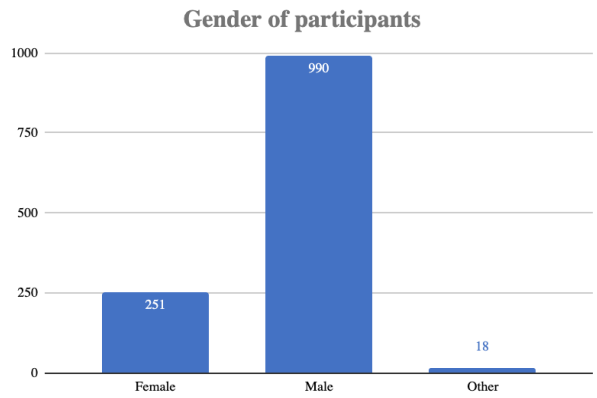
Other: A little about you, Agender, All, Androgyne, fluid, Genderqueer, Guy (-ish) ^_^, male leaning, androgynous, Male-ish, Nah, Neuter, non-binary, ostensibly male, unsure what that really means, p, queer, queer/she/they, something kinda male?, Enby

Similarly, we cleaned the data in R.

Analysing data in Excel - seeking treatment & co-workers

To analyse the data we counted the total number of females/males/others and total number of 'yes'/ 'no'. We have used the following function (=COUNTIF(E2:E1260, "Female"). This counts the total number of females. The 'countif' function was used every time we wanted to count the total number of a value.

We found that the majority of participants identified as male (see below bar graph). This allowed for better investigation of our hypothesis that men are less likely to talk about mental health or engage in health seeking behaviour.



Then we merged the two columns to see the number of males/females/others that said yes/no to treatment using the function e.g (=CONCAT(E3,F3)). We used the 'countif 'command again to count the number of males that said no etc.

The above- mentioned method was also used to analyse the variable gender against co-workers to understand what the relation is between gender and the willingness of participants to discuss a mental health issue with their co-workers.

Finally we produced graphs for our results.

Results

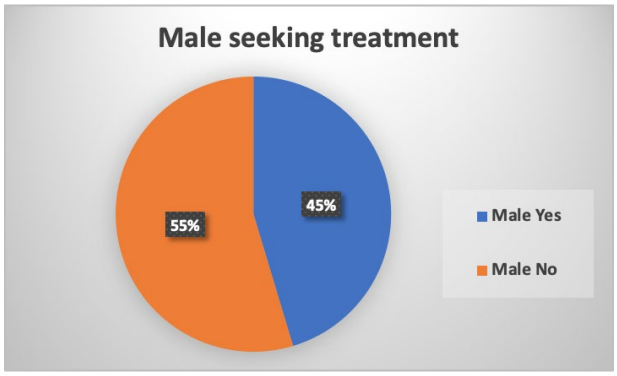
Distribution of age by gender

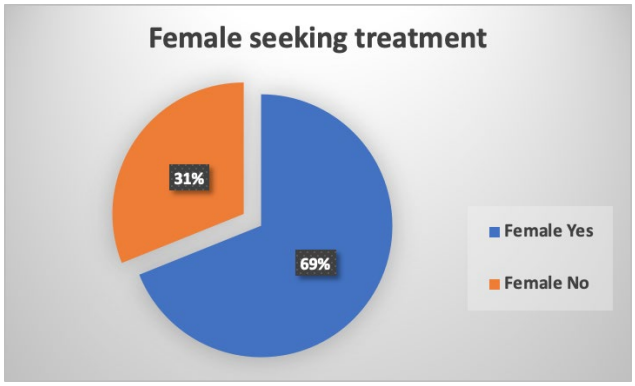
Age group	Female (% of all female participants)	Male (% of all male participants)
18-27	92 (37%)	266 (27%)
28-37	120 (48%)	507 (51%)
38-47	36 (14%)	174 (18%)
48-57	2 (1%)	33 (3%)
68-78	1 (0%)	6 (1%)
Total	**251**	**991**

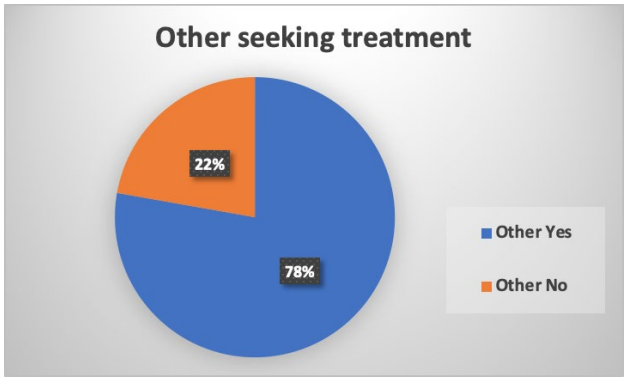
Age was converted to categorical variables. The majority of participants are in the age group 18-37 accounting for around 78- 85% of all participants in both gender categories. The sample is therefore not representative with regard to age and this may result in bias.

Seeking treatment:

We understand from the analysis of this variable that it supports the hypothesis that men are less likely to engage in mental health seeking behaviour. This is because 45% of males in our study have sought treatment for mental health illness. Whereas 69% of females and 78% of others have sought treatment for mental health illness. This can be seen in the below pie charts.







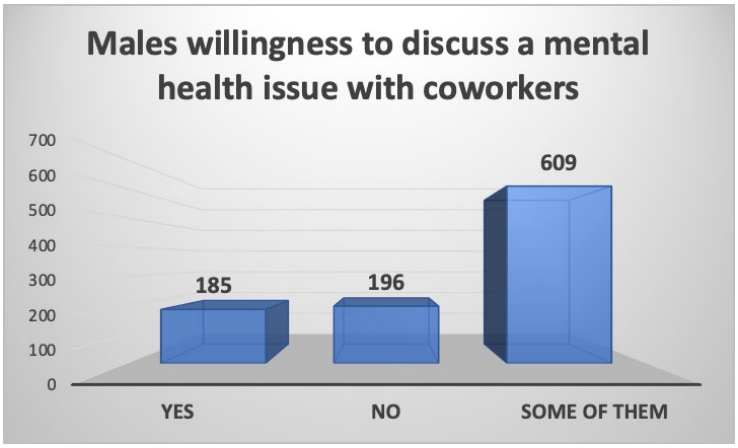
We have used Excel to perform a chi-squared test to test the null hypothesis that the variables gender and seeking treatment are independent. We can see that the chi-squared value is 49.93 to 2 d.p and the critical value is 5.99 to 2 d.p and so we reject the null hypothesis. This is further proven by the p-value, as the p-value is 0.00 to 2 d.p and so is smaller than the significance level of 5% (see Appendix 1).

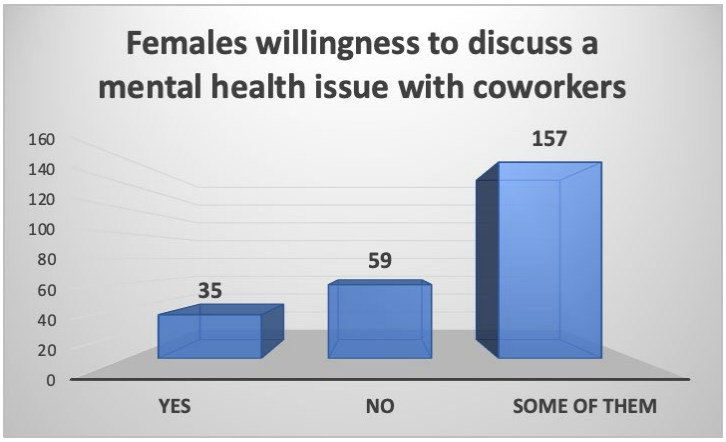
Therefore, we reject the null hypothesis and so we found that there is a relation between gender and seeking treatment. The analysis of this variable is of great significance and strongly supports our hypothesis that men are less likely to talk about mental health or engage in mental health seeking behaviour.

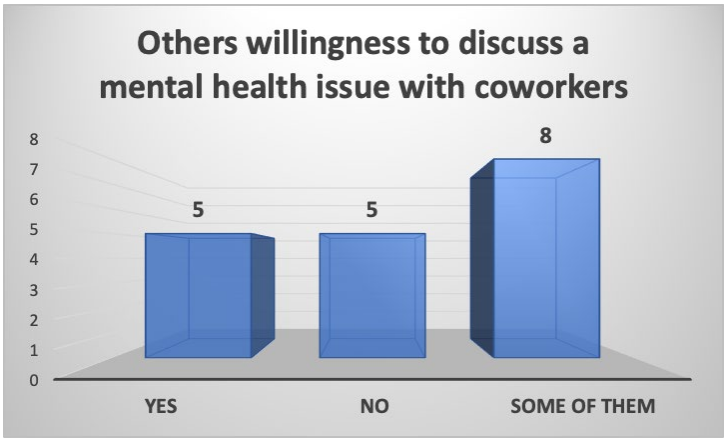
Co-workers

The result of the analysis of gender against the willingness of the participants to discuss a mental health issue with co-workers was not significant. This is because the results show that roughly 19%

of males are willing to discuss a mental health issue with their co-workers whereas for females it was 14%. Approximately 20% of males and 24% of females were not willing to discuss it. A large majority of participants are willing to discuss a mental health issue with some of their co-workers. From this analysis we can see that the statistical results for male and female participants were similar.



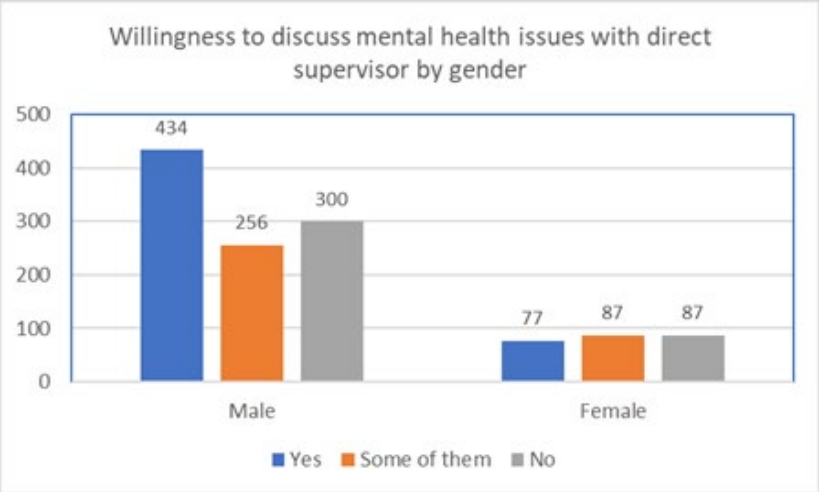




This was further proven by our chi-squared test. We used Excel to test the null hypothesis that there is no relation between gender and the willingness to discuss a mental health issue with co-workers. We found that the chi-squared value is 6.20 to 2 d.p and the critical value is 9.49 to 2 d.p and so we fail to reject the null hypothesis. This is further proven by the p-value, as it is 0.18 to 2 d.p and so is bigger than the significance level of 5% (see Appendix 2)

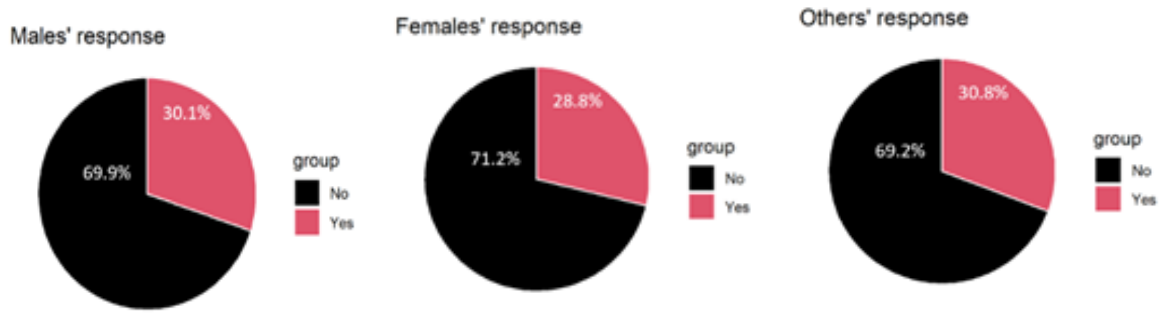
Therefore, we fail to reject the null hypothesis and so there is no relation between gender and willingness to discuss a mental health issue with co-workers.This means that there is no significance in this variable to support the statement that men are less likely to talk about mental health or engage in mental health seeking behaviour.

Willingness to discuss mental health issues with direct supervisor by gender



Chi-squared test was used to test the null hypothesis that there is no association between gender and willingness to discuss mental health issues directly with a supervisor. As the p-value is 0.00 to 2d.p., there is a strong evidence against the null hypothesis at 1% significance level. This suggests an association between gender and willingness to discuss mental health issues with a supervisor.

Remote work



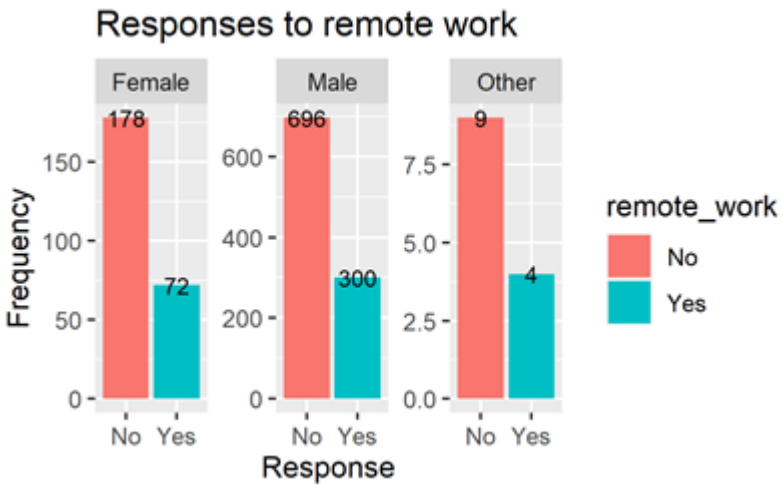
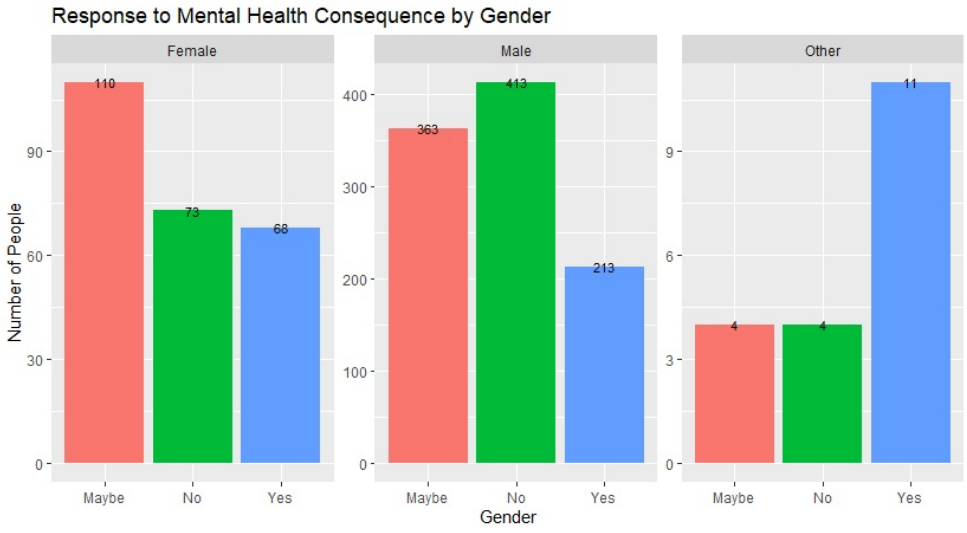


Table of results

Remote work	Female	Male	Other	Total
Yes	72	300	4	376
No	178	696	9	883
Total	250	996	13	1259
Chi Square Value=0.1715				
p value= 0.917829				

After cleaning up the gender categories, we created some bar charts and pie charts to be able to visualise the data; from this we were able to see that between the gender categories, the proportions of remote work remained consistent. We used a chi square test to see if this was accurate and found that at $p < 0.05$, the data is not significant. This would mean that there are no significant differences between whether 'Males', 'Females' or 'Other' work from home or not, which would mean that remote work doesn't play a large role in whether mental health is discussed or health behaviour is engaged with.

Mental Health Consequences



When asked if discussing a mental health issue with an employer would lead to negative consequences, 21% of male participants agreed with the statement. This value is lower than that of the female participants at 27% and other genders at 56%.

Using a chi squared test, assuming that there would be no difference between the results observed and the expected results at a null hypothesis. The result of the chi squared test (Appendix 4) was higher than the critical value at 3.84 at a 5% significance level with 8 degrees of freedom. Therefore, the null hypothesis is rejected and it can be concluded that the results are not significant.

Conclusion

The results show that our hypothesis that men are less likely to talk about mental health is true. Statistics show that men are less likely to access psychological therapies than women, with only 36% of NHS referrals to a therapist are for men. There are many possible reasons that men are less likely to talk about mental health. For instance, societal and traditional gender roles create stereotypes where men are often expected to be the breadwinners and have a strong and dominant character (Men and mental health, 2021). These types of stereotypes can make it harder for men to reach out for help and open up. Some research also shows that men are less likely to speak openly about their emotions which can make it hard for them to recognise their symptoms and mental health problems (Priory Group, 2021).

Research by the Mental Health Foundation found that in the UK, men are

- Three times as many men as women die by suicide
- Have the highest suicide rates between the ages of 40-49
- Report lower levels of life satisfaction than women
- Nearly three times more likely to become dependent on alcohol and three times more likely to report frequent drug use
- More likely to be compulsorily detained

A main challenge we encountered was that the age group 18-37 held 80% of the data meaning that there was some bias in our results. Another challenge we experienced was coming up with a suitable hypothesis in order to carry out a statistical test. The question had to meet the overall aim of the report and making sure each hypothesis tested was relevant was key.

References

Hamann, J., Mendel, R., Reichhart, T., Rummel-Kluge, C. and Kissling, W., 2016. A “Mental-Health-at-the-Workplace” Educational Workshop Reduces Managers' Stigma Toward Depression. *Journal of Nervous & Mental Disease*, 204(1), pp.61-63.

Krupa, T., Kirsh, B., Cockburn, L. and Gewurtz, R., 2009. Understanding the stigma of mental illness in employment. *Work*, 33(4), pp.413-425.

Who.int. 2021. *Mental health*. [online] Available at: <https://www.who.int/health-topics/mental-health#tab=tab_2> [Accessed 29 July 2021].

www.rcpsych.ac.uk. 2021. *Psychiatrists see alarming rise in patients needing urgent and emergency care and forecast a 'tsunami' of mental illness*. [online] Available at: <https://www.rcpsych.ac.uk/news-and-features/latest-news/detail/2020/05/15/psychiatrists-see-alarming-rise-in-patients-needing-urgent-and-emergency-care> [Accessed 29 July 2021].

Mental Health Foundation. 2021. *Men and mental health*. [online] Available at: <https://www.mentalhealth.org.uk/a-to-z/m/men-and-mental-health> [Accessed 30 July 2021].

Priory Group. 2021. *40% of men won't talk to anyone about their mental health*. [online] Priory Group. Available at: <https://www.priorygroup.com/blog/40-of-men-wont-talk-to-anyone-about-their-mental-health> [Accessed 30 July 2021].

Appendices

Observed	Yes	No	Total
Male	449	541	990
Female	173	78	251
Others	14	4	18
Total	636	623	1259

Expected	Yes	No	Total
Male	500.111199	489.888801	990
Female	126.79587	124.20413	251
Others	9.0929309	8.9070691	18
Total	636	623	1259

Chi-square	Yes	No	Total
Male	5.22354769	5.33254628	10.55609397
Female	16.8366813	17.1880086	34.02468989
Others	2.64813705	2.70339512	5.351532171
Total	24.7083661	25.22395	49.93231603

	r-1=2	CV	5.991464547
	c-1=1	p-value	1.4366E-11
Df	2		

Appendix 1

Observed	Yes	No	Some	Total
Male	185	196	609	990
Female	35	59	157	251
Others	5	5	8	18
Total	225	260	774	1259

Expected	Yes	No	Some	Total
Male	176.926132	204.447975	608.625894	990
Female	44.8570294	51.8347895	154.308181	251
Others	3.21683876	3.7172359	11.0659253	18
Total	225	260	774	1259

Chi-squared	Yes	No	Some	Total
Male	0.36844386	0.34907792	0.00022995	0.71775174
Female	2.16601567	0.99045914	0.04695726	3.20343207
Others	0.9884437	0.44266325	0.84944529	2.28055224
Total	3.52290322	1.78220032	0.8966325	6.20173605

	r-1 = 2	CV	9.48772904
	c-1 = 2	p-value	0.18458054
Df	4		

Appendix 2

Remote work	Female	Male	Other	Total
Yes	72	300	4	376
No	178	696	9	883
Total	250	996	13	1259
Chi Square Value=0.1715				
p value= 0.917829				

Appendix 3

```
        Chi-squared test for given probabilities

data:  Gender_MentalHealthConsequence$frequency
X-squared = 1385.3, df = 8, p-value < 2.2e-16
```

Appendix 4

Survey questions

- Timestamp
- Age
- Gender
- Country
- **state**: If you live in the United States, which state or territory do you live in?
- **self_employed**: Are you self-employed?
- **family_history**: Do you have a family history of mental illness?
- **treatment**: Have you sought treatment for a mental health condition?
- **work_interfere**: If you have a mental health condition, do you feel that it interferes with your work?
- **no_employees**: How many employees does your company or organization have?
- **remote_work**: Do you work remotely (outside of an office) at least 50% of the time?
- **tech_company**: Is your employer primarily a tech company/organization?
- **benefits**: Does your employer provide mental health benefits?
- **care_options**: Do you know the options for mental health care your employer provides?
- **wellness_program**: Has your employer ever discussed mental health as part of an employee wellness program?
- **seek_help**: Does your employer provide resources to learn more about mental health issues and how to seek help?
- **anonymity**: Is your anonymity protected if you choose to take advantage of mental health or substance abuse treatment resources?
- **leave**: How easy is it for you to take medical leave for a mental health condition?
- **mental*health*consequence**: Do you think that discussing a mental health issue with your employer would have negative consequences?
- **phys*health*consequence**: Do you think that discussing a physical health issue with your employer would have negative consequences?
- **coworkers**: Would you be willing to discuss a mental health issue with your coworkers?
- **supervisor**: Would you be willing to discuss a mental health issue with your direct supervisor(s)?
- **mental*health*interview**: Would you bring up a mental health issue with a potential employer in an interview?
- **phys*health*interview**: Would you bring up a physical health issue with a potential employer in an interview?
- **mentalvsphysical**: Do you feel that your employer takes mental health as seriously as physical health?
- **obs_consequence**: Have you heard of or observed negative consequences for coworkers with mental health conditions in your workplace?

Appendix 5