# 2019 VIRGINIA PUBLIC SAFETY MENTAL HEALTH PILOT SURVEY

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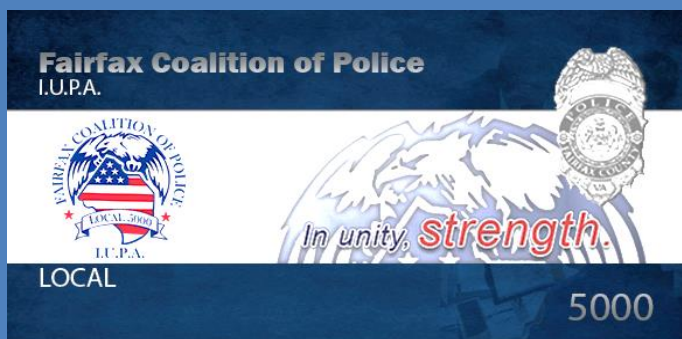
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26 Agencies across the Commonwealth of Virginia Surveyed:

Arlington County Police Department

Arlington County Fire Department

Arlington County Emergency Communications Center

City of Chesapeake Police Department

Fairfax County Police Department

Fairfax County Department of Public Safety Communications

Fairfax City Police Department

Fairfax City Fire Department

Falls Church City Police Department

Fauquier County Fire Department

Harrisonburg Police Department

Harrisonburg Public Safety Communications

Leesburg Police Department

Leesburg Public Safety Communications

Manassas Park Police Department

Manassas Park Fire Department

Norfolk Police Department

Prince William County Police Department

Prince William County Fire Department

Prince William County Department of Public Safety Communications

Purcellville Police Department

Virginia State Police

Virginia Beach Police Department

Virginia Beach Fire Department

Warrenton Police Department

Winchester Police Department

<u>First Responder Survey Executive Summary</u>

The loss of first responders by suicide is devastating to their families, friends, and agencies. The growing number of deaths across the nation constitutes a clear crisis in public safety: nationwide, we are on track to lose more officers to suicide than in recent years. More officers die by their own hand than in line of duty deaths, a disparity that appears to be getting worse. The Fairfax County Police Department is no exception and has had their share of heartbreak and loss to suicide, especially in recent years. In response to this crisis, the department developed a survey to capture a snapshot of the agency. The goal was to:

- Identify risk and protective factors related to the mental health of officers.
- Guide changes in policy and legislation.
- Strengthen the focus on wellness and prevention to build resilience and reduce the impact of repeated exposure to trauma.
- Target cultural changes to reduce stigma and encourage first responders to seek treatment.
- Address clinical issues with evidence-based treatment.

To analyze the results, the department was very fortunate to partner with the United States Marshals Service Behavioral Analysis Unit and the Fairfax County Coalition of Police Local 5000, who administered the survey and collected the data.

This year, nearly 5,000 first responders in Virginia completed the Fairfax County Police Department's survey. They had the courage to speak up about their emotional health and the costs of the work they choose to do every day. Their responses have been the same across 26 agencies and all three branches of public safety work: they are in pain. Despite the pain, many of them are reluctant to seek relief because they are all too aware of the expectations that they should always remain strong and stoic. Those expectations may come from society, from within the agency, and from the first responder himself: whatever their sources, these beliefs stand between many first responders and the relief they deserve.

The survey was initially developed by the Fairfax County Police Department as a short, internal questionnaire to collect anonymous responses about officers' well-being, how the work might have affected them, and what kinds of help they wanted in order to be healthier. **The response rate was staggering: about 60% of our officers had the courage to speak up about such "forbidden" topics as trauma, depression, alcohol use, and suicidal thinking.** Even more surprising, other departments throughout the state began asking for the survey to give it to their personnel, and they were kind enough to share the results.

Nearly eight percent (7.8%) of first responders in this survey admitted to recent thoughts of suicide. By comparison, the estimated rate of suicidal thoughts in the general U.S. population is three percent. This is in a population that is presumably healthier than the general population at the beginning of their careers, because they are psychologically screened and selected.

Suicidal thoughts are linked to other serious problems as well. Those who endorsed suicidal thoughts were more likely to be depressed and angry or confrontational. They were also more likely to suffer from reactions to traumatic experiences: the more reactions they reported, the more likely they were to report suicidal thoughts. Those who reported three out of five traumatic reactions were twice as likely as the average first responder to have suicidal thoughts. Those who endorsed all five types of traumatic reactions were four times as likely. The association between suicidal thoughts and conditions like depression and trauma are very clear; it seems equally clear that treating those conditions successfully would be a vital step toward reducing the suicide rates among first responders.

Almost one out of four (23.7%) respondents said they suffered depression as a consequence of their work. Depression was most likely to strike among experienced personnel, those with more than five years on the job. Those who suffered from depression were far more likely to think about quitting or retiring, suggesting that depression may cause experienced first responders to leave their careers. Those suffering from depression were also far more likely to talk about wanting help, yet felt pessimistic or hopeless that things would improve.

Trauma reactions are also far too common among first responders. Nearly half of our sample endorsed feeling hypervigilant or overly watchful, a common trauma reaction that leaves the person feeling unable to stop scanning for threats even in their home life. Other common reactions include flashbacks, nightmares, and avoidance of people or places that remind them of a traumatic experience.

First responders also spoke up about what prevents them from seeking the help they need. Three out of ten respondents wanted to "tough it out" or handle it on their own; another three out of ten feared stigma or that their employer would find out. This was especially true for those who have suffered from depression or suicidal thoughts.

As an example of a first responder who needs assistance, consider the hypothetical case of "Officer Jones". (This case is a composite based on statistical analyses of our survey results.) In the twelve years of his career, Officer Jones has been exposed to hundreds of situations that have the potential to be traumatic. Some of those situations break into his thoughts during the day and play out in nightmares as he tries to sleep. He finds himself avoiding certain places and situations because they remind him of what he has been through. He has gradually pulled away from people in his personal life, become more angry and confrontational, and his drinking has increased. He knows that he could probably benefit from talking to someone, but he keeps trying to handle it on his own rather than risk consequences to his career or negative judgments from his work friends. Officer Jones might not admit to having any thoughts of suicide, although he knows other first responders who have them.

While the high response rates across Virginia were initially surprising to us, perhaps the first responders who spoke up are people who have been suffering like Officer Jones, or know someone who has been. With the results clearly demonstrating that these individuals suffer in silence due to fear and stigma.

Where do we go from here?

We believe the first task is to broadcast these results to spark discussion and encourage evidence-informed changes within the first responder culture. The second task will be to design a follow-up survey that builds on the first. For example, it will be helpful to have more respondents to inform statistical analyses and demographic information to guide interventions. We plan to ask more refined questions about the issues that trouble first responders most, such as depression and trauma. We also plan to look at risk and protective factors over the course of a career. For example, is there something protective in the first five years that caused a lower rate of depression in those respondents? Are there risk variables such as repeated exposure to trauma that affected those with more time on the job? What can be done to identify protective factors and moderate the risk factors?

It is clear from the survey results that first responders are hurting and quietly suffering from secondhand pain. On the worst day of others' lives, they are the first to respond yet the last to seek help. The culture is understandably proud, is told to "suck it up," be stoic…but our survey confirms that they are hurting and even contemplating suicide as an escape from their pain.

What can change right now? A paradigm shift in mindset is needed. The "suck it up" attitude, expecting first responders to be superhuman while day after day seeing the worst that society offers, is contributing to poor mental and physical health and killing our protectors. Here are a few ways that public safety agencies can respond:

- Be open and public about the toll that the job takes on first responders and take the responsibility to educate both their employees and the community they serve
- Strongly endorse that it is "okay not to be okay" and support and encourage seeking culturally competent help
- Have prevention and wellness programs in place where first responders learn self-care that can mitigate some of the effects of the job
- Stress that there are evidence-based treatments (one example is cognitive-behavioral therapy) for the problems that first responders are reporting

When first responders sustain psychological injuries and illness during their careers, the effects need not be permanent or fatal. Prevention, early detection, and appropriate treatment can ease suffering and save lives. These men and women are begging for help with depression, PTSD, trauma reactions, substance use, sleep problems, irritability, and feeling isolated and withdrawn. **They have shown the courage to speak; now it is the responsibility of their agencies to respond.**

Background

In December 2018, the United States Marshals Service (USMS), Behavioral Analysis Unit (BAU) welcomed the opportunity to provide analytical support to the 2018-2019 Fairfax County Public Safety Mental Health Pilot Survey. This in an important – indeed, critical – issue, and to date it has been under-studied in our profession.

The survey data set included a total of 4,871 respondents from 15 police departments, 6 fire and rescue departments, and 5 public safety communication centers. The sizes of participating agencies within each type varied widely.

The pilot survey did not ask respondents for demographic Information (e.g., age, gender); however, responses to other questions of interest were used to group participants and conduct statistical comparisons. The analysis of the pilot survey data focused on two key groups:

1) Those who reported having suicidal thoughts within the last year.

2) Those who indicated that working in their profession has caused symptoms of depression.

The following pages provide a summary of the findings.

For detailed questions related to the methodology or statistical procedures used, please contact Robert Grillo at robert.grillo@usdoj.gov.
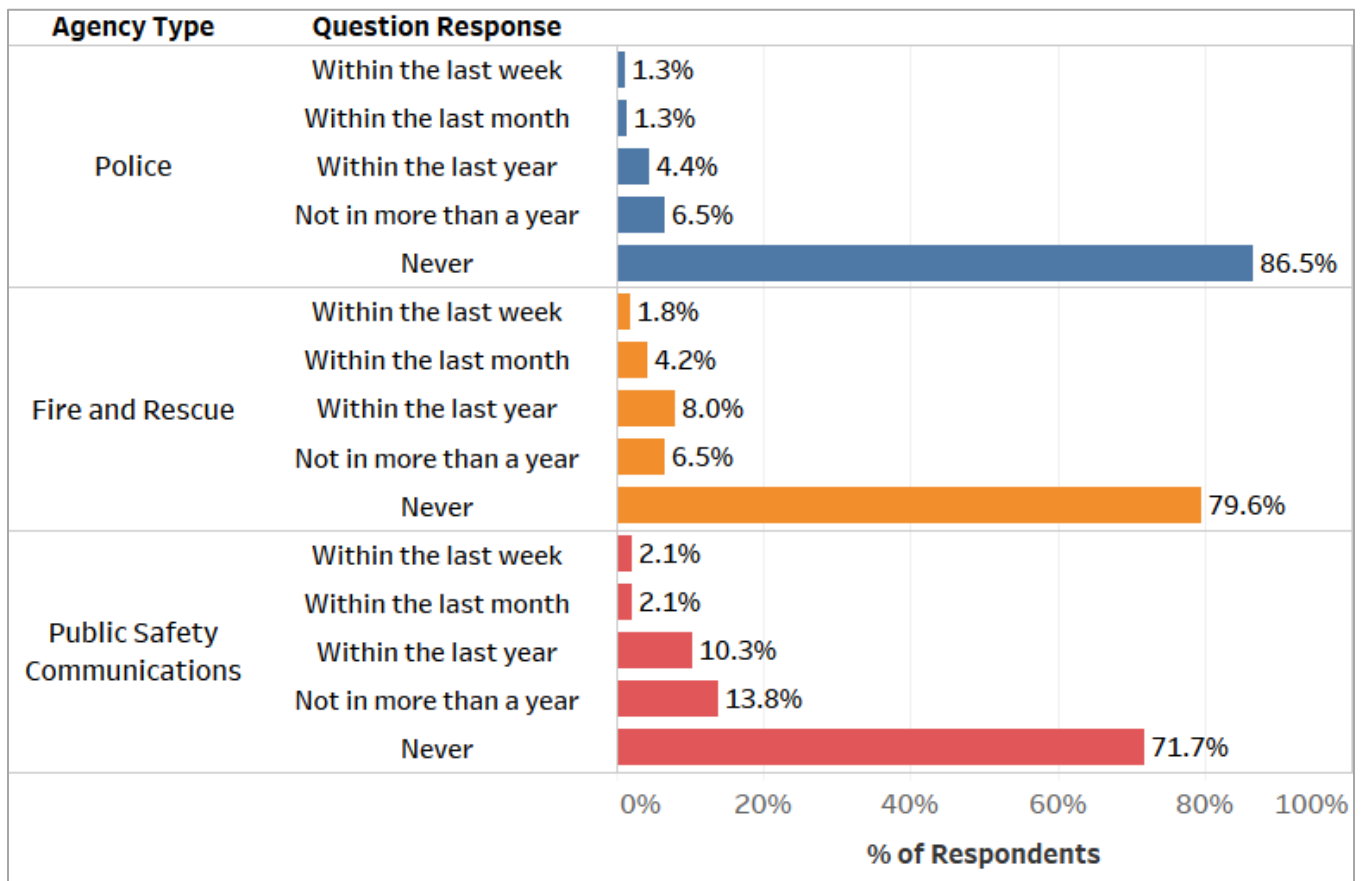
When was the most recent time you had any suicidal thoughts?

This crucial question helps identify the public safety professionals at greatest risk. It is therefore useful to group the participants based on this question and compare their responses to other survey questions, providing insight into the issues most associated with those at risk. This question was used to separate the participants into two groups for the purposes of analysis:

1) Those reporting suicidal thoughts within the last year (considered recent suicidal thoughts).

2) Those reporting no suicidal thoughts within the last year or never having suicidal thoughts.

Statistical comparisons between these two groups was the key approach toward determining how working in the public safety profession affects the mental health of employees.

381 (7.8%) of the respondents reported having recent suicidal thoughts. The figure below appears to show that police officers have the lowest rates of recent suicidal thoughts among the agency types; however, it is difficult to determine if they in fact have lower rates or are simply less likely to report such matters than the other two professions.

| Agency Type	Question Response	% of Respondents
Police	Within the last week	1.3%
	Within the last month	1.3%
	Within the last year	4.4%
	Not in more than a year	6.5%
	Never	86.5%
Fire and Rescue	Within the last week	1.8%
	Within the last month	4.2%
	Within the last year	8.0%
	Not in more than a year	6.5%
	Never	79.6%
Public Safety Communications	Within the last week	2.1%
	Within the last month	2.1%
	Within the last year	10.3%
	Not in more than a year	13.8%
	Never	71.7%

Is a particular work-caused concern or change for the worse more likely to be selected by someone reporting recent suicidal thoughts?

Through two questions, participants were asked to select the personal concerns or changes for the worse they have experienced as a result of carrying out their duties. By comparing the recent suicidal thought response rates for those who selected a particular item versus those who did not select the item, it was possible to gain an understanding of which concerns and changes provide the strongest indicators of suicide risk.

In the figure below, 24.3% of the respondents who selected "Depression" as a work-caused concern reported having recent suicidal thoughts. Only 2.9% of those that did not select "Depression" reported having recent suicidal thoughts. The 21.4% difference between these two groups was the largest gap and strongest statistical association among these questions.

The risk factors in the figure are sorted in descending order by the size of the difference between the "Selected" and "Did Not Select" groups. All differences were found to be statistically significant.

Percent of Group Reporting Recent Suicidal Thoughts

■ Selected Concern   ■ Did Not Select Concern
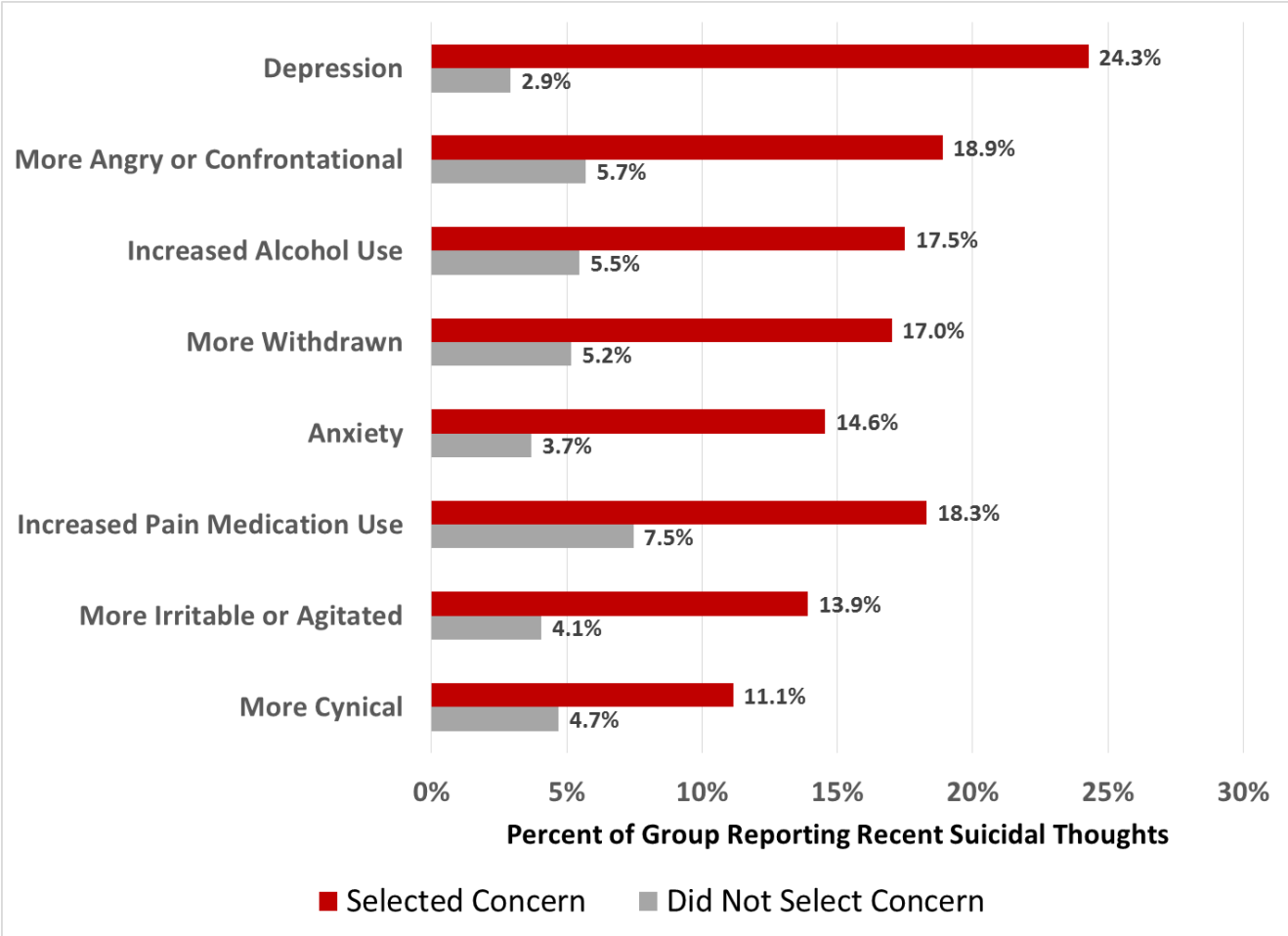
Is a particular work-related trauma reaction more likely to be selected by someone reporting recent suicidal thoughts?

When asked "Do you experience any of the following from your work," the respondents were allowed to select from a series of potential trauma reactions. By comparing the recent suicidal thought response rates for those that selected a particular trauma reaction versus those that did not, it was possible to distinguish which reported reactions provide the strongest indicators of suicide risk.
In the figure below, 20.5% of the respondents who selected "Avoiding Reminders of Critical Events" as a work-caused trauma reaction also reported having recent suicidal thoughts. Only 5.8% of those that did not select this item reported having recent suicidal thoughts. The 14.6% difference between these two groups was the second largest gap and second strongest statistical association among these questions.

The work-cause trauma reactions in the figure below are sorted in descending order by the size of the difference between the "Selected" and "Did Not Select" groups. All differences were found to be statistically significant.
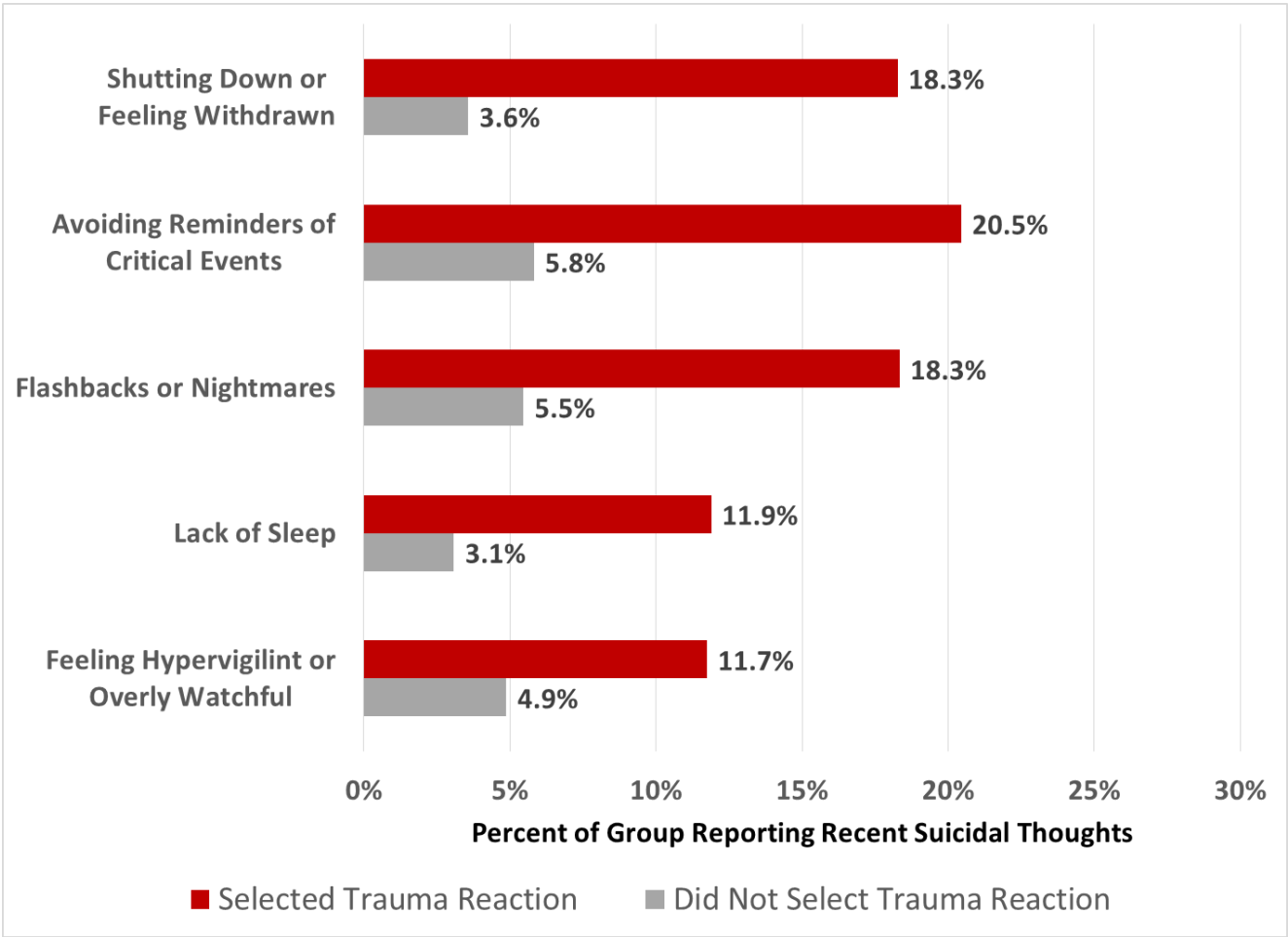
Is someone who selects multiple trauma reactions more likely to report recent suicidal thoughts?

The respondents were grouped by their number of selected trauma reactions. When examining the associated rates of reported recent suicidal thoughts across these groups, there was a clear increasing relationship. The increasing rates across the groups in the figure below were found to be statistically significant. This analysis implies that a compounding effect may exist with regard to experiencing work-related trauma reactions.

# of Trauma Reactions Selected

5	30.3%
4	20.8%
3	15.7%
2	8.1%
0 or 1	2.1%

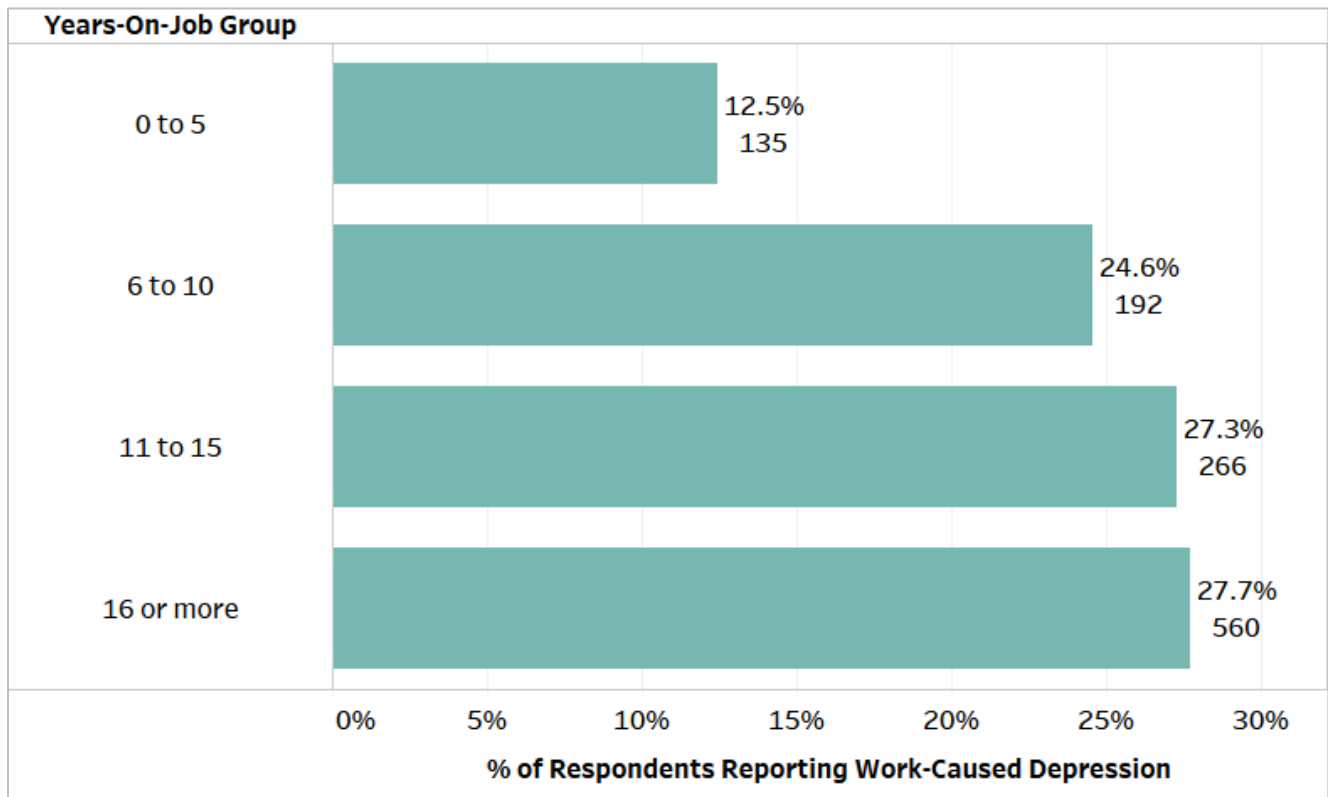**% Reporting Recent Suicidal Thoughts**
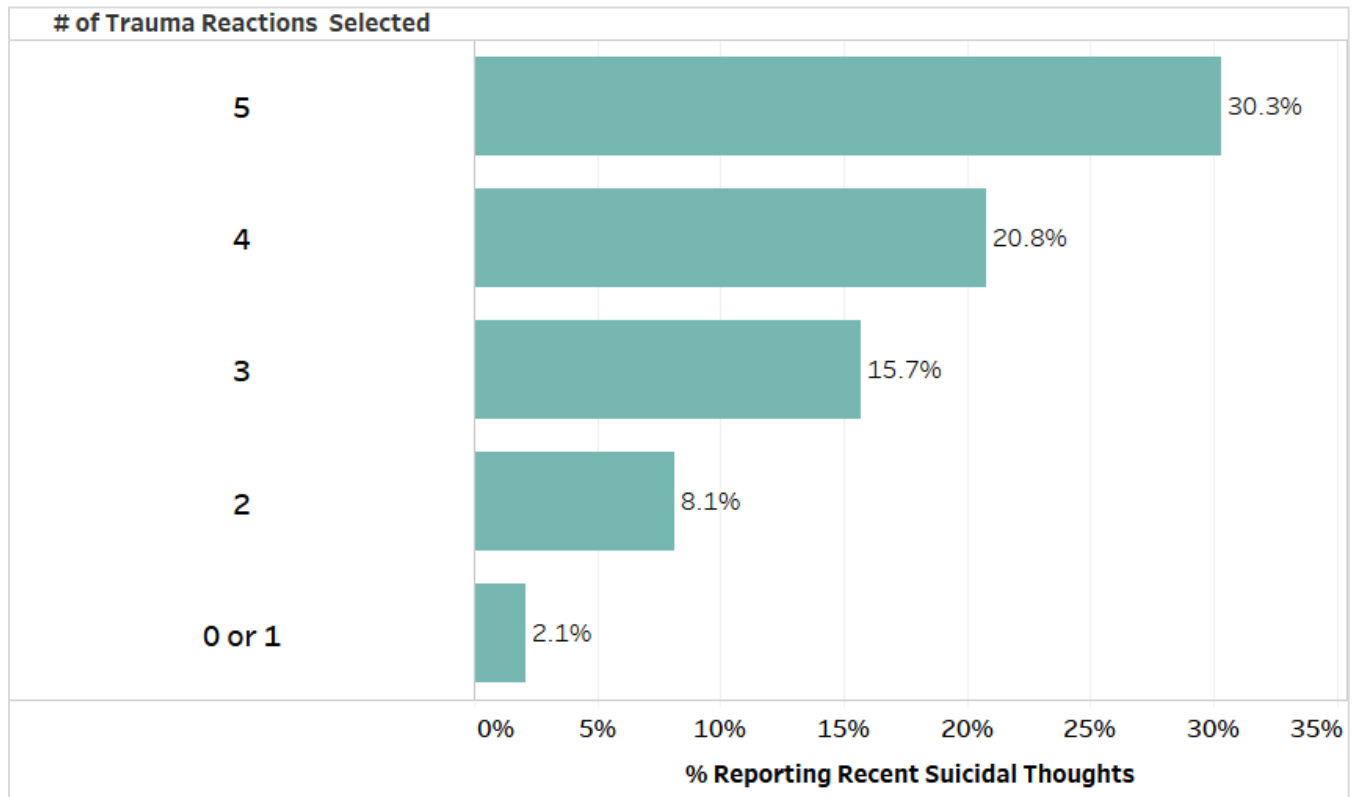
Is a particular year-on-job range more likely to report work-caused depression?

Given the strength of the relationship identified between personal concerns of depression and recent suicidal thoughts, comparisons were also made among the following groups:

1) Those selecting "Depression" as a concern caused by their profession.

2) Those who did not select "Depression" as a concern caused by their profession.

The figure below shows a statistically significant jump in work-caused depression between the "0 to 5" years-on-job group and the other three groups. This sharp increase appears to indicate a work-related deterioration in the mental health of public safety professionals beginning relatively early in their careers.

Years-On-Job Group

Group	%	Count
0 to 5	12.5%	135
6 to 10	24.6%	192
11 to 15	27.3%	266
16 or more	27.7%	560

% of Respondents Reporting Work-Caused Depression

If you wanted help but DIDN'T seek it, why not?

When those wanting help were asked to select the reasons why they did not seek it out, they provided the responses summarized in the figure below. "I wanted to handle it on my own" and "I didn't think it was that big a deal" were the two reasons most frequently selected.
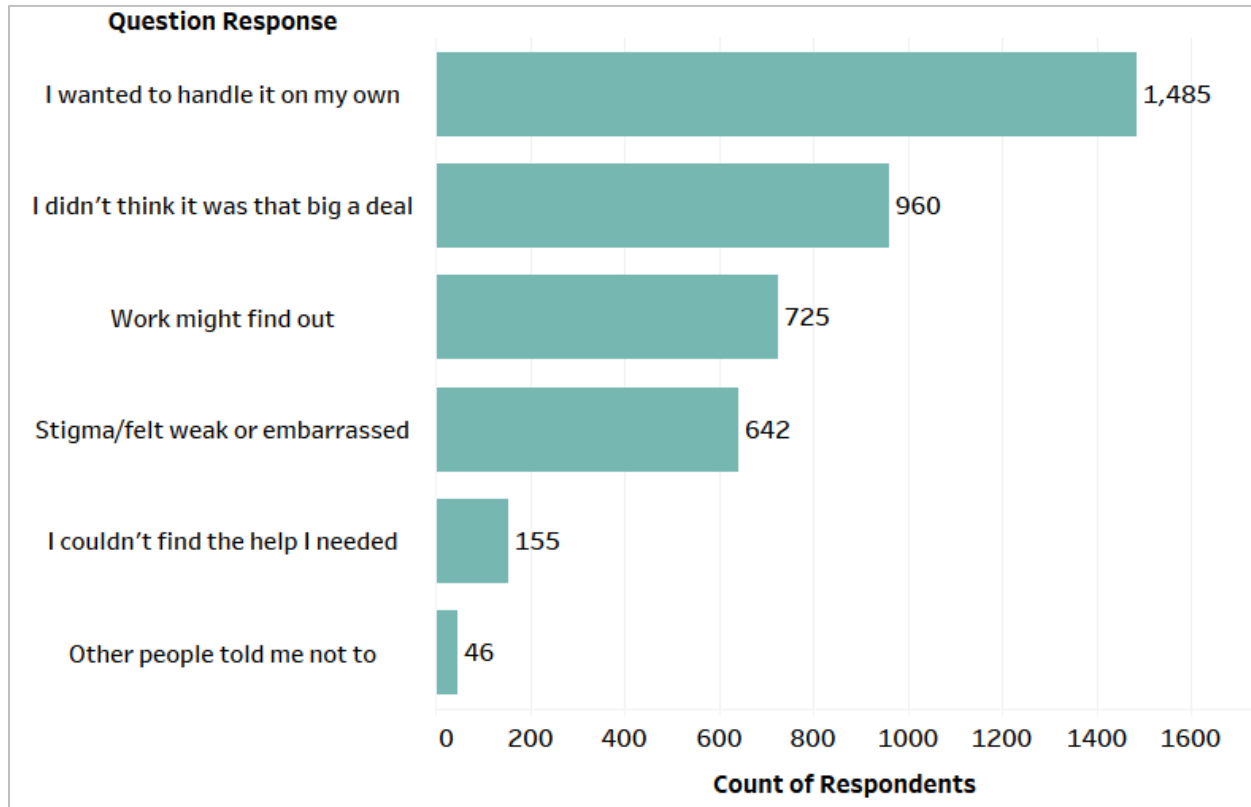
The table below summarizes how frequently individuals in each at-risk group selected each of the reasons for not seeking help. For example, 39.6% of the "Recent Suicidal Thoughts" group selected "Work might find out" as a reason for not seeking help. Similarly, 29.8% of the "Work-Caused Depression" group selected "Stigma/felt weak or embarrassed" as a reason for not seeking help.

| Reason for Not Seeking Help	% of Group that Selected the Reason	
	Recent Suicidal Thoughts Group	Work-Caused Depression Group
I wanted to handle it on my own	59.3%	52.6%
Work might find out	39.6%	33.4%
Stigma/felt weak or embarrassed	36.2%	29.8%
I didn't think it was a big deal	33.6%	28.6%
Other people told me not to	19.6%	1.6%
I couldn't find the help I needed	10.2%	7.8%

Text Response Analysis

The survey contained three questions that allowed free text responses. The three questions were:

1) What can YOU do (that you aren't already doing) that would help your well-being?

2) What can your immediate SUPERVISOR start doing that would help your well-being?

3) What can your AGENCY start doing that would help your well-being?

The responses to each of these questions were manually reviewed and flagged as being related to one of 18 possible topics. This process made it possible to analyze the free text respondents in a similar manner to the other questions in the survey.

Statistically significant differences in the text responses between those reporting work-caused depression and those without work-caused depression are summarized in the figure below. The item at the top shows that of the people who made reference to quitting, retiring, and/or finding another position, 42% also reported concerns of work-related depression. In contrast, 22% of those that did not reference this topic reported concerns of work-related depression. The 20% difference between these two groups was the largest gap among the topics shown in the figure.
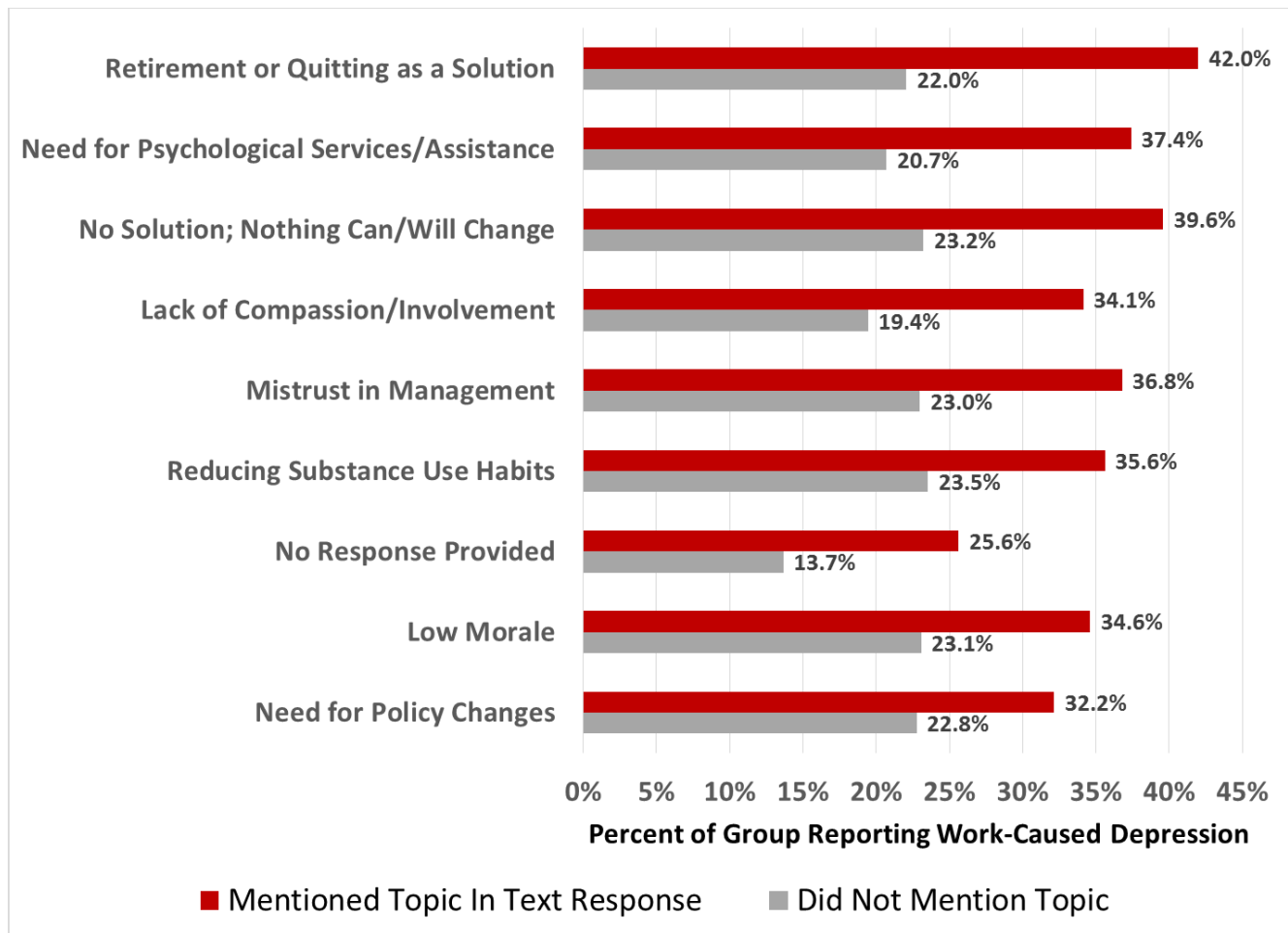
Cluster Analysis of Survey Response Options

By conducting a cluster analysis of the responses to survey questions, it was possible to gain an understanding of which mental health factors are most closely associated with each other. This approach calculates how similar each type of survey response is to each other when examined across the respondents.
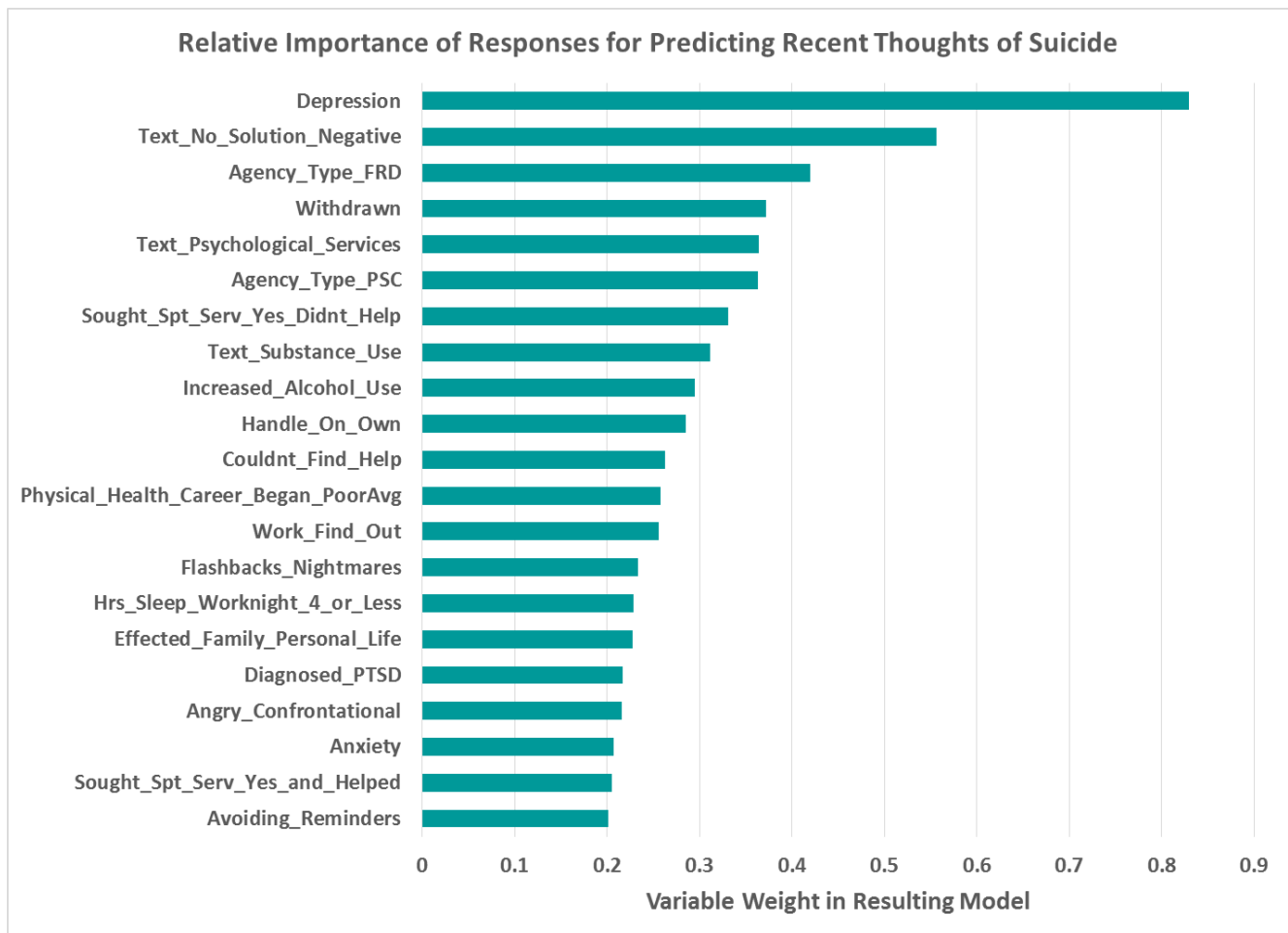
Several types of individuals seem apparent in the cluster diagram below. When examining the green and purple clusters, they do not appear to have indicators of serious mental health concerns. The blue cluster seems to capture those suffering from trauma reactions. The orange cluster contains the suicidal thoughts variables and thus represents a high-risk group; however, it also contains variables related to seeking help, being diagnosed with mental health issues, and being in favor of psychological services. The red cluster, on the other hand, contains an assortment of high-risk factors and remains in close proximity to the suicide related variables. Additionally, this red cluster does not contain variables related to seeking assistance. It therefore can be considered the highest-risk group among the set of clusters generated in this analysis.
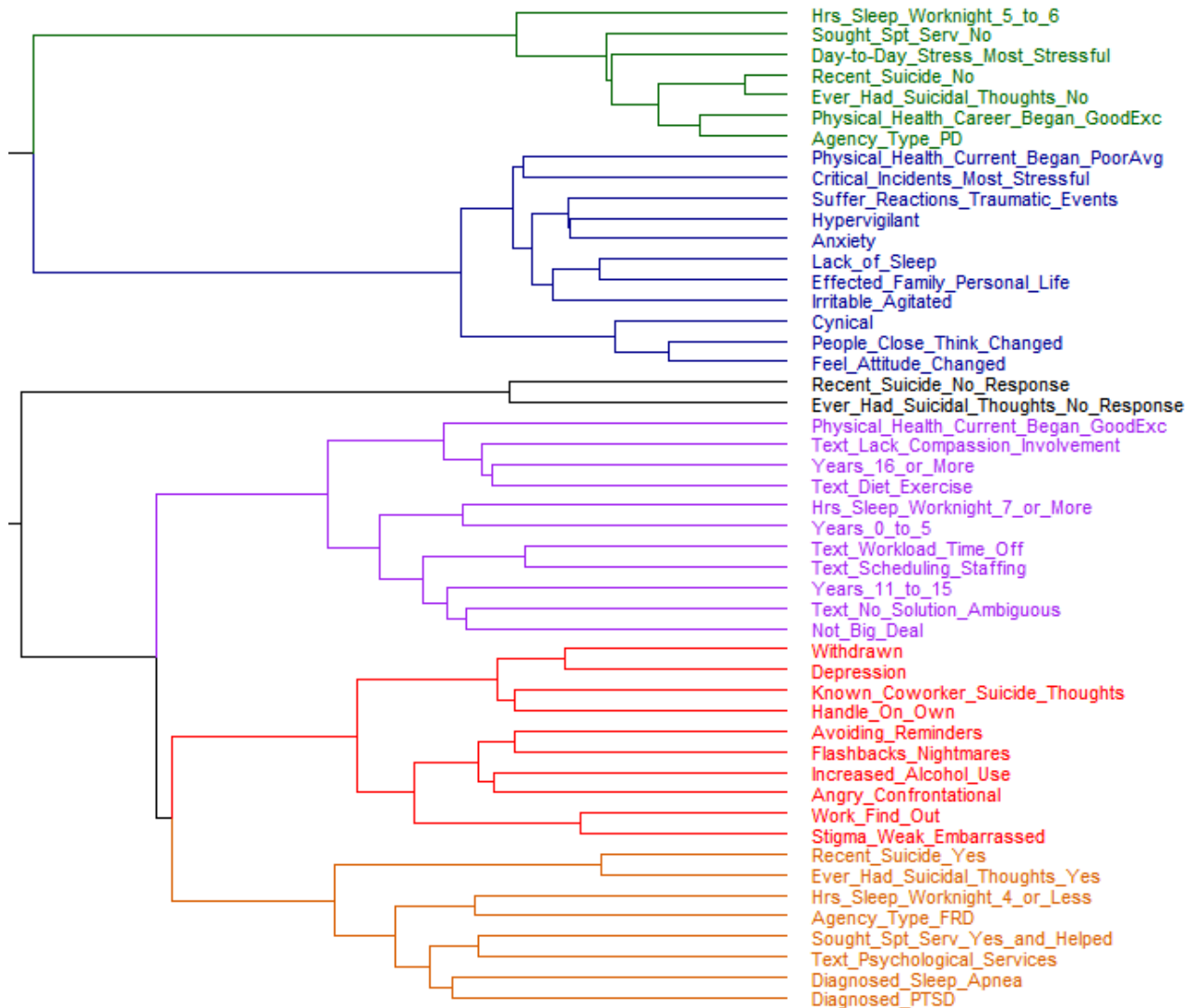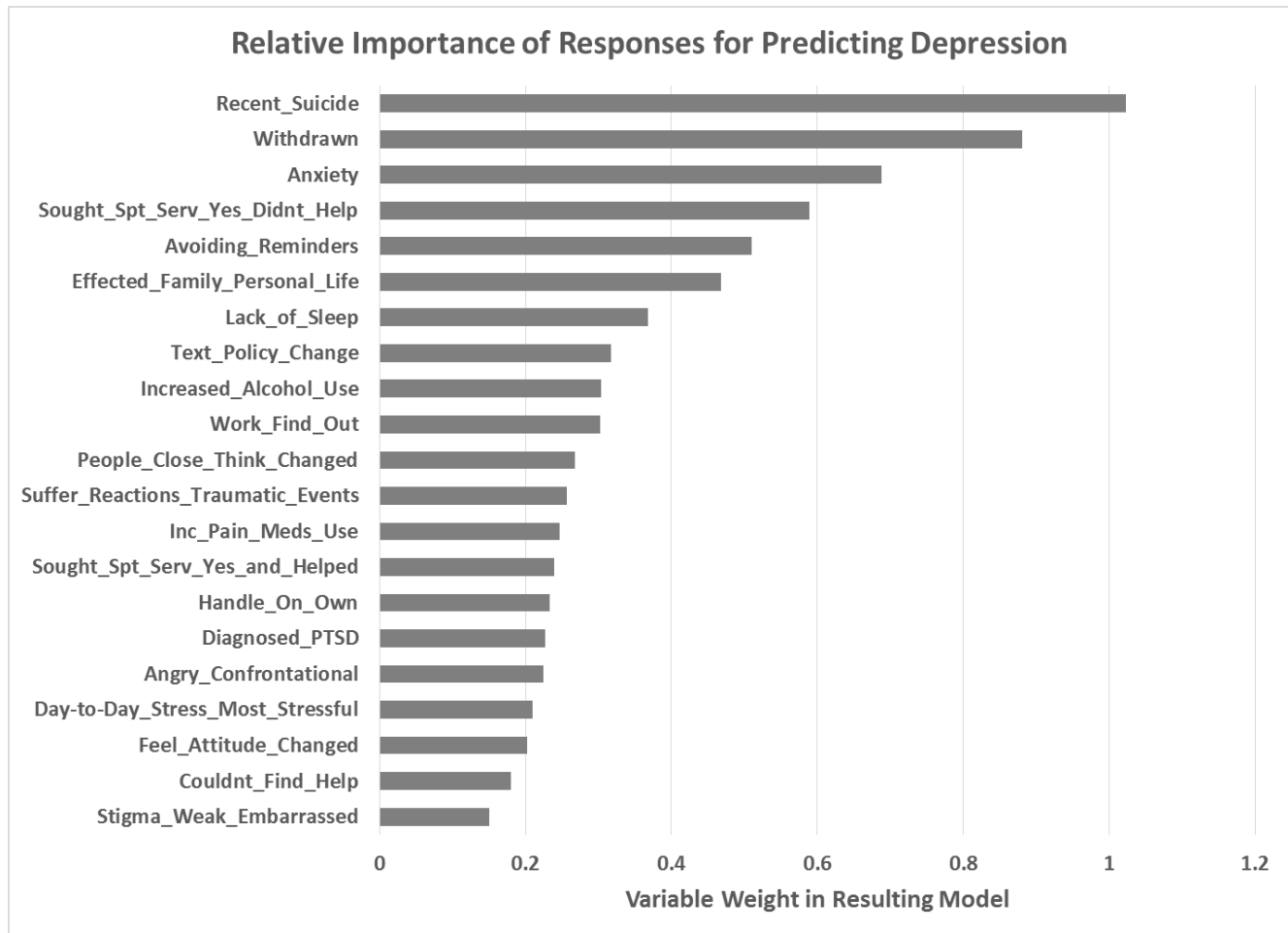
Predictive Model for Recent Suicidal Thoughts

A statistical model was formulated to reveal the most predictive factors of recent suicidal thoughts. The figure below lists the 21 most predictive variables in order of their relative importance to each other. For example, the "Depression" variable was considered roughly twice as important in the model as the "Withdrawn" variable. The bar sizes represent the variable weight (i.e., the coefficients). These results share similarities with those found from previously described analyses. This approach, however, offers the advantage of considering the importance of each response in the context of all other responses provided by the participants.

Relative Importance of Responses for Predicting Recent Thoughts of Suicide

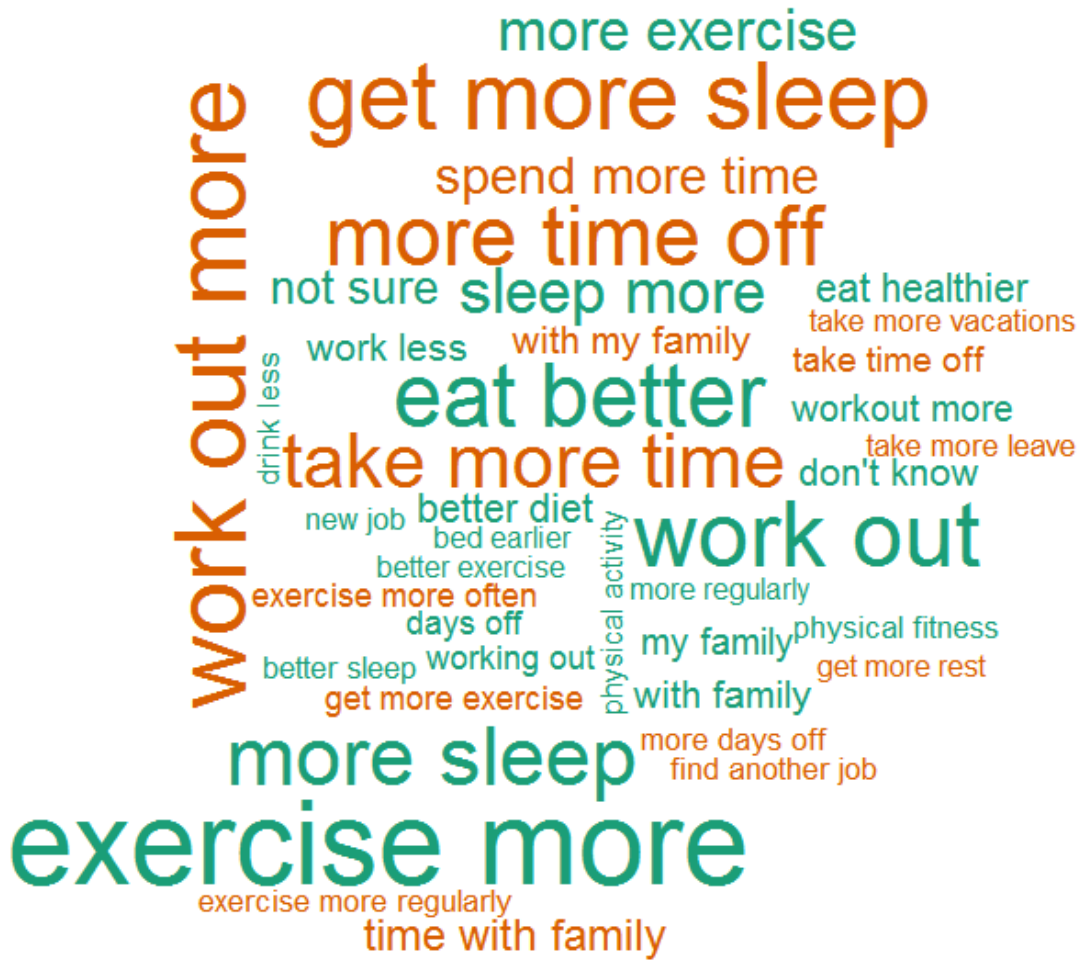| Variable	Weight
Depression	0.83
Text_No_Solution_Negative	0.56
Agency_Type_FRD	0.42
Withdrawn	0.37
Text_Psychological_Services	0.37
Agency_Type_PSC	0.37
Sought_Spt_Serv_Yes_Didnt_Help	0.33
Text_Substance_Use	0.31
Increased_Alcohol_Use	0.30
Handle_On_Own	0.29
Couldnt_Find_Help	0.26
Physical_Health_Career_Began_PoorAvg	0.26
Work_Find_Out	0.26
Flashbacks_Nightmares	0.24
Hrs_Sleep_Worknight_4_or_Less	0.23
Effected_Family_Personal_Life	0.23
Diagnosed_PTSD	0.22
Angry_Confrontational	0.22
Anxiety	0.21
Sought_Spt_Serv_Yes_and_Helped	0.21
Avoiding_Reminders	0.20

Variable Weight in Resulting Model

Predictive Model for Work-Caused Depression

A second statistical model revealed the most predictive factors related to work-caused depression. The figure below lists the 21 most predictive variables in the resulting model in order of their relative importance to each other. For example, the "Recent Suicide" variable was considered roughly twice as important in the model as the "Avoiding Reminders" variable.

Relative Importance of Responses for Predicting Depression

Variable	
Recent_Suicide	
Withdrawn	
Anxiety	
Sought_Spt_Serv_Yes_Didnt_Help	
Avoiding_Reminders	
Effected_Family_Personal_Life	
Lack_of_Sleep	
Text_Policy_Change	
Increased_Alcohol_Use	
Work_Find_Out	
People_Close_Think_Changed	
Suffer_Reactions_Traumatic_Events	
Inc_Pain_Meds_Use	
Sought_Spt_Serv_Yes_and_Helped	
Handle_On_Own	
Diagnosed_PTSD	
Angry_Confrontational	
Day-to-Day_Stress_Most_Stressful	
Feel_Attitude_Changed	
Couldnt_Find_Help	
Stigma_Weak_Embarrassed	

Variable Weight in Resulting Model (x-axis: 0, 0.2, 0.4, 0.6, 0.8, 1, 1.2)

What can YOU do (that you aren't already doing) that would help your well-being?

What can your immediate SUPERVISOR start doing that would help your well-being?

What can your AGENCY start doing that would help your well-being?