

**Improving Peer Support and Reducing Stigma for Police Officer Wellness**

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**Author Note**

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She has no known conflict of interest to disclose

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### Abstract

Police officers have more mental health issues than the general population and face barriers to seeking help, such as stigma, organizational masculinity, and concerns about confidentiality. This project took place in an urban police department in Arizona and aimed to increase the frequency of officers seeking peer support or counseling and reduce mental health stigma. Peer support volunteers increased officer contact following exposure to traumatic incidents. Officers viewed an educational video on mental health and available resources, and sergeants were provided with a quick reference guide on mental health warning signs. Rates of counselor fund utilization by officers pre-and post-intervention were monitored, and all officers were emailed a Likert-scale peer support satisfaction survey. Survey results (n=39) showed officers were moderately satisfied with peer support and knowledge, but many were not comfortable contacting peer support for personal issues. Of officers surveyed, 74.4% (n=29) did not seek counselor services after contact with peer support. Counselor fund utilization slightly increased post-intervention, but further study is needed to determine the correlation to interventions. This project was unable to definitively demonstrate that peer support and education for officers and leadership increases help-seeking behaviors. Future projects should focus on improving peer support volunteer training and education.

*Keywords:* police officers, law enforcement, mental health, peer support, stigma, counseling

### **Improving Peer Support and Reducing Stigma for Police Officer Wellness**

Police officers are a vital part of our society. They protect and serve the public and maintain order in our communities while frequently facing dangerous situations that result in physical and emotional trauma. Years of trauma exposure and job-related stress contribute to mental illnesses, which police officers often ignore because of widespread organizational and personal stigma towards mental health. Recognizing the importance of police work and the sacrifices these individuals make necessitates system changes to improve the mental health of police officers.

#### **Background and Significance**

Law enforcement officers (LEO) have high illness and injury rates compared to other occupations in the United States (Price, 2017). LEO psychopathology rates are twice rates in the average population due to trauma exposure and work-related stress. In a systematic literature review completed by Syed et al. (2020), the prevalence of posttraumatic stress disorder (PTSD) in police officers was 14.2%. The incidence of depression was 14.6%, risky alcohol consumption 25.7%, suicidal ideation was 8.5%, and anxiety was 9.6%. In a survey of officers by Jetelina et al. (2020), 12% reported a lifetime diagnosis of mental health issues, while 26% of them screened positive for a current mental health issue. Of those who had a current diagnosis of mental illness, 69% had PTSD, and 50% had depression (Jetelina et al., 2020). In contrast, the National Institute of Mental Health (NIH) estimates the average population prevalence of PTSD and depression are 3.6% and 7.1%, respectively (NIH, 2017; 2019).

The combination of high rates of mental health issues and associated comorbidities places all first responders in a vulnerable position. Bowler et al. (2016) published a follow-up to the World Trade Center Health Registry longitudinal study of first responders. The researchers

identified that PTSD in first responders often co-occurs with other psychological comorbidities: anxiety and depression being the most common. Amongst the study participants with PTSD, 21.8% had no comorbidity, 24.7% had PTSD and depression, 5.8% had PTSD and anxiety, and 47.7% had both depression *and* anxiety (Bowler et al., 2016). The researchers also found that participants with mixed PTSD, depression, and anxiety had more severe PTSD symptoms and more physical health problems (Bowler et al., 2016).

Suicide ideation is also higher in law enforcement officers. Up to 47% of officers report an incidence of suicide ideation in their lifetimes. There is insufficient data on the number of officers that commit suicide each year, but estimates indicate that more officers die by suicide than on-duty fatalities. LEOs that are single or separated/widowed/divorced are at an increased risk of suicide (Carleton et al., 2018). Substance abuse and marital problems also put an officer at an increased risk for attempted suicide (Price, 2017). Suicides in this population are likely not planned. The probable causes are firearm availability, adeptness at using a firearm, a significant stress event, and substance abuse (National Consortium on Preventing Law Enforcement Suicide, 2020).

A challenge to addressing LEO mental wellness is that there are many barriers to seeking care (Jetelina et al., 2020; Violanti et al., 2017; Price, 2017). Barriers include stigma, organizational masculinity, poor mental health literacy, concerns about confidentiality, and a belief that mental health providers cannot relate to police work (Jetelina et al., 2020; Demou et al., 2020). In an officer survey, only 35% with mental health diagnoses sought services for treatment (Jetelina et al., 2020). Mental health stigma is the formation of negative attitudes or beliefs that lead to prejudice, stereotyping, or discrimination (Haugen et al., 2017). In a national survey of over 7000 law enforcement officers, 90% reported stigma toward mental health as a

barrier to help-seeking behaviors. Stigma can occur as self-stigma, peer stigma, or organizational stigma. Common concerns among officers include the risk of losing their career, losing the trust of their colleagues, being seen as “weak,” and being deemed unfit for duty. They also share a concern that mental health providers do not understand police work (Drew & Martin, 2021).

Additionally, law enforcement culture can prevent help-seeking behaviors in LEOs. Looking outside the police organization for help is seen as suspicious by other officers since the culture dictates officers are supposed to trust each other and maintain the “blue wall of silence” (White et al., 2015). The danger of police work and the occasional need for coercive authority over civilians, combined with scrutiny from supervisors and the public, create a stressful situation in which officers form suspiciousness of others and a desire to avoid punishment from superiors. This stressful pattern leads to social isolation and subsequent loyalty to their fellow officers. Loyalty to fellow officers involves feelings of solidarity and trust and a recognition that they must protect each other in dangerous and hostile situations. They receive cultural pressure to master their own emotions and stress. The combination of these cultural issues can preclude officers from using outside mental health professionals to support their needs (Paoline & Gau, 2017).

Poor mental health literacy often contributes to officers avoiding treatment. LEOs frequently do not understand the benefits of mental health care and what treatment entails. They may not know where to seek help or how to find a mental health provider (Haugen et al., 2017).

Current standard mental health services for LEOs include stress management, peer support, and mental health promotion training. Occasionally police departments offer employee assistance programs (EAP) to connect officers to mental health resources. Many departments

utilize mandatory counseling and debriefing after critical incidents to aid officers in coping with a traumatic event (Price, 2017). The International Association of Chiefs of Police's (IACP) initiative to promote officer health and wellness calls for a change in police departments' culture concerning mental health (Price, 2017). The IACP, in partnership with the U.S. Department of Justice, Bureau of Justice Assistance, and National Action Alliance for Suicide Prevention, created the National Consortium on Preventing Law Enforcement Suicide Toolkit. This toolkit aids departments in supporting mental wellbeing and providing education on suicide and resilience. Its aim is to assist departments in providing better access to care, developing trauma-informed practices, normalizing help-seeking behavior, and identifying at-risk individuals (National Consortium on Preventing Law Enforcement Suicide, 2020).

### ***Purpose and Rationale***

This project aimed to assist a local police department in reducing barriers to care to improve the mental health outcomes of officers. As demonstrated, there are many risk factors for mental health issues, including long hours, workload, police culture, and trauma exposure (Demou et al., 2020). Police officers are often under pressure from their organizations to make the correct choice at every encounter and maintain emotional control. They protect the population's safety and interact with humans during crises (Price, 2017; Violanti et al., 2017; Wheeler et al., 2018). This stressful job situation leads to mental health issues, burnout, and compassion fatigue, which proper self-care and supportive services can help prevent (Andersen et al., 2018). Chronic stress can also decrease job performance, reaction times, and memory abilities (Papazoglou & Andersen, 2014; Wheeler et al., 2018). These problems can influence the way officers interact with civilians, how they function as co-workers, and how they cope in their private lives.

### ***Internal Evidence***

A selected police department in Arizona identified officer mental health as an essential topic for improvement. The human performance coordinator in the department reported their process for assisting officers with mental health issues was fragmented and unclear (M. Hanks, personal communication, December 15, 2020). At the time, the mental health support for the department included a peer support program run by volunteer officers and an employee assistance line for crisis support. An interventional project that investigated mental health interventions to successfully reduce anxiety, depression, and PTSD among this department's officers, and potentially reduce mental health stigma, was determined to be of most value.

### ***PICOT Question***

In police officers, will trauma-focused counseling as opposed to no intervention more successfully reduce rates of depression and PTSD in a three-month period?

### **Evidence Synthesis**

#### ***Literature Review and Search Strategy***

An exhaustive literature search was performed to answer this PICOT question. The scholarly databases referenced included: PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, PsycINFO, and EMBASE. Articles older than five years were excluded, along with reports that did not focus on police officers' mental health. Articles from other countries were considered for inclusion but were limited to studies published in the English language. Grey literature from government and police consortium websites and dissertations on this topic found on ProQuest were also reviewed.

#### ***Keyword Selection***

Initial searches were based on the keywords *police officer* and *mental health* and produced hundreds of articles on these topics. Additional searches were performed, including *first responders, anxiety, depression, PTSD, mental health, and stress management*. Subsequent searches in PsychInfo and Cochrane Library were conducted for relevant randomized controlled trials conducted on interventions to improve mental health, adding the keywords *military, air force, navy, army, mental health, and PTSD*. These searches yielded a high output of studies, so additional limiters applied include *interventions, treatments, PTSD, mental health, peer support, stigma, military, and army*.

### ***Search Yield***

After reviewing articles from database searches, 50 high to moderate-level studies were chosen for inclusion. Critical appraisal was completed on these studies, and 31 were included in this review. All included studies address aspects of the PICOT question and relate to police officers, mental health, and interventions to improve mental health. Studies including first responders and soldiers were considered applicable to this PICOT because of the similarity in traumatic exposure, job stresses, and mental health comorbidities between these occupations.

### **Critical Appraisal and Synthesis**

Rapid critical appraisal checklists were used to evaluate all articles. Many studies utilized in this review were high-level evidence studies, such as systematic reviews and randomized clinical trials (see Appendix A, Table A1). Articles that focused on police officers and other similar careers, such as first responders and active-duty soldiers or veterans were also included. These articles were deemed applicable because of the many similarities of these occupations to police officers, such as regular exposure to traumatic events, high stress levels, and mental health comorbidities (McKeon et al., 2020).

Studies contained in the synthesis table (see Appendix B, Table B1) had large sample sizes, low levels of bias, and feasible interventions. Three studies involved mindfulness interventions (Borman et al., 2018; Joyce et al., 2019; Wild et al., 2020). Other interventions included peer-training programs, yoga, and wellness programs (Davis et al., 2020; Gulliver et al., 2016; Wild et al., 2020). Measurement tools were varied, but the majority used the Clinician-Administered PTSD Scale (CAPS) and investigated interventional effects on symptoms of PTSD (Alden et al., 2020; Davis et al., 2020; Kitchiner et al., 2019; Niles et al., 2018; Syed et al., 2020). Four systematic reviews were chosen for critical appraisal because they focused on risk factors and the prevalence of mental health problems in police officers, and effective interventions for these problems (Alden et al., 2020; Lees et al., 2019; Syed et al., 2020).

### ***Conclusions***

The prevalence of mental health problems in police officers is significant, particularly PTSD, stress, anxiety, and depression. Determining successful interventions to reduce these problems is imperative (Price, 2017; Violanti et al., 2017; Bowler et al., 2016; Syed et al., 2020). The literature review highlights interventions that show significant effects on various mental health issues using high levels of evidence. Psychological interventions, such as trauma-focused cognitive behavioral therapy (TF-CBT), effectively reduce symptoms of PTSD in first responders and soldiers (Reger, 2020; Alden et al., 2020; Kitchiner et al., 2019; Lees et al., 2019). Multiple studies demonstrated that exercise reduces mental health issues in populations, particularly law enforcement (Ermasova et al., 2020; Davis et al., 2020; Wild et al., 2020; Rosenbaum et al., 2019; Mehling et al., 2018). In addition, mindfulness shows promise as an effective method to improve mental health symptoms in police officers (Joyce et al., 2019; Borman et al., 2018; Niles et al., 2018). Lastly, assisting first responders in recognizing stressors

they can control in their lives, how to seek help, and ways to recognize warning signs of suicidality or depression reduce mental health risks (Reavley et al., 2018; Lanza et al., 2018).

Because mental health stigma is a prevalent barrier in this population, additional searches were conducted to investigate effective stigma-reducing interventions. A critical aspect of reducing stigma is providing a trusted source for information. Police culture emphasizes trust and loyalty to fellow officers; thus, peer support is often preferred to discussing issues with outsiders (Paoline & Gau, 2017). LEOs in one survey rated peer support as a highly effective technique to promote mental health. They specified that they preferred outside counseling services over counseling with an in-house mental health professional due to fear of organizational ties to the provider (Drew & Martin, 2021). LEOs in the same survey rated mental health education as an ineffective method to reduce stigma (Drew & Martin, 2021); however, other studies have shown that education on mental health *can* reduce stigma in police officers (Short, 2020; Wheeler et al., 2018). An additional potential method to reduce stigma is yearly mandatory mental health “check-ups” to decrease the fear and stigma of visiting a mental health professional. Underlying the recommendation to make them mandatory is the belief it will reduce anxiety and officers will not feel singled out (Wheeler et al., 2018). Another suggestion is to have veteran officers promote mental health visits and start mental health care education in the academy and throughout the officers’ careers as a part of yearly training (White et al., 2015).

Trauma exposure, stress, and mental health issues make police work difficult. LEOs need support in these areas to have better health, successful careers, and avoid burnout or disability. Health care providers and police department leaders can assist LEOs with various support services to improve mental health outcomes. Project ideas were presented to the site

champion based on the literature review and implementation timeline. Ultimately, a project based on peer support improvements and brief education was selected and approved by the project site champion. The project was initially planned for an implementation period of three months, which had to be reduced to six weeks after site delays. It was hypothesized that post-intervention evaluations would increase mental health service fund utilization and satisfaction with peer support services.

### ***Evaluation Question***

For police officers, does an improved peer support process, which includes the addition of regular peer support contact for officers after traumatic event exposure, providing a quick reference guide for officer referral to peer support, and delivering an educational mental health video as opposed to no change, increase officer satisfaction and utilization of counseling services in six weeks?

### **Theoretical Framework**

The Health Belief Model was initially developed to postulate the sources of patient acceptance of health care practices (Janz & Becker, 1984). It suggests that an individual's behavior can be predicted based on four major concepts: perceived benefits, perceived barriers, perceived susceptibility, and perceived severity (see Appendix C, Figure 1). Perceived benefits include the likeliness of the treatment to heal or improve the individual and will further influence an individual's choice, along with the perceived barriers, consisting of cost, complexity, and level of risk. If a potential health problem is individually pertinent and determined to be of significant severity, action is more likely to occur. Further modifying factors in the model include demographic variables and sociopsychological variables. In addition to these concepts, the model suggests that a decision will not take place without a trigger, or a cue to action, that

may involve a family member or health care worker encouraging activity, or even a media source such as a commercial, advertisement, or article (Janz & Becker, 1984).

This model was used to guide the interventional project which aimed to improve the wellbeing of officers and help them adapt to the high demands of their job. The model directed identifying potential factors behind an officer's choice when modifying mental health problems. For example, an increase in stress and psychological phenomena from work-related events is likely during an officer's career. It is then helpful to identify potential barriers and benefits to seeking care and provide education on the frequency and severity of mental health problems in the population, increasing the officers' perceived susceptibility and severity. Locating these barriers and seeking to overcome them can assist with the success of an intervention. Potential cues to action included officer contact by peer support or a counselor.

### **Implementation Framework**

The Advancing Research and Clinical Practice through Close Collaboration (ARCC) model is used for implementing evidence-based practice (EBP) (see Appendix D, Figure 2). This framework was developed to help organizations translate research into practice to improve patient outcomes. It involves four concepts: barriers and facilitators are present for both individuals and organizations, obstacles must be removed, and facilitators must be implemented for the change to succeed. Then, education and encouragement are essential for buy-in, including identifying strengths and increasing knowledge on the project. Next, the framework advises establishing champions to promote the change process while implementing the intervention and evaluating the process after project completion (Melnyk, 2012).

The ARCC framework is a good fit for guiding a change process in a police department. First, following the concept of identifying barriers and facilitators, sources of stigma should be

identified and overcome, and facilitators employed. Identified barriers included officer stigma towards mental health and help-seeking (Jetelina et al., 2020). Potential facilitators include peer and organizational support, which can increase help-seeking behaviors in LEOs (Demou et al., 2020, Ermasova et al., 2020). To remove obstacles to the project's success and encourage buy-in, the project team planned to improve the peer support process and provide officer and command staff education. Lastly, the model suggests that establishing champions promotes project success. Establishing champions was essential for the project's site champion and other project facilitators.

## **Implementation Plan**

### ***Setting and Stakeholders***

The police department serves a suburb of a central metropolitan area in Arizona. It has approximately 320 officers and sergeants, lieutenants, commanders, assistant chiefs, and a police chief. Because of the location of this city and the presence of a large university within the city limits, there are frequent calls for service which involve motor vehicle accidents, drug trafficking, and gang-related crimes. In 2020, the city had ten reported homicides, 141 reported rapes, and 209 cases of robbery. Reported assaults reached 531 in number, along with 15 incidents of arson (TPD, 2020).

Stakeholders in the organization include the Training Unit sergeant and site champion (the primary point of contact for the project), who also assisted with developing and facilitating the project. The commander of professional services is the next direct supervisor in the organization, and oversees training, standards, and services for the officers. He approved the project's methods and goals and was a point of contact. The peer support team and Training Unit members supported the project during its implementation. Lastly, the police chief, as a

stakeholder, is responsible for the department staff's wellbeing, standards, and performance (M. Hanks, personal communication, May 15, 2021).

### ***Participants***

Inclusion criteria for participation in this project were English-speaking, active-duty police officers from the selected urban police department in Arizona. Officers were not excluded based on age, race, or sex. Recruits in the training academy were excluded as they do not have critical incident exposure on the job.

### ***Ethical Considerations and Human Subject Protection***

Recruitment of officers occurred by a consent form attached to a post-intervention survey sent through the officers' union email. This method was chosen to promote the submission of surveys, as officers might not trust the department's email system. By submitting a survey, the participants consented to participation. The surveys were anonymous, and all officers received written assurance of privacy in the survey email. The project team made no direct contact with participants. The commander of professional services at the police department approved the final project plan, and the agency representative signed a letter of support. ASU IRB submission for a social-behavioral protocol and project materials received expedited review approval in February 2022.

### **Methods**

The project methods included officer and command staff education on mental health and department resources, an improved peer support process, and a mental health "warning sign" reference sheet provided to sergeants.

For the educational component, the project team created a video for officers to view, detailing the importance of mental health, means to support mental health, and the potential

consequences for law enforcement when mental health is not maintained. The film also promoted peer support services and resources available to officers. Sergeants played the video during squad briefings, once for each squad, before their shift. Following the ARCC framework, the education sessions consisted of education *and* encouragement to emphasize the significance of mental health and an officer's ability to improve their mental health (Melnik, 2012). Peer support team members, the training unit, and command staff supported the process, potentially reducing organizational stigma (Drew & Martin, 2021). Posters promoting the peer support service and the importance of mental health were developed by the project team and posted around the police stations in the city by the site champion. A new peer support logo was created by an officer in the department and added to the posters. Lastly, the site champion distributed reference sheets on warning signs of officer mental illness to sergeants detailing when an officer should be referred to peer support or mental health professionals (see Appendix F).

The peer support team contacted officers after critical incident exposure, self-referral, or referral from another police officer or command staff member to improve the peer support process (see Appendix E). After the initial contact, the peer support team contacted the officer weekly for one month, then monthly for three months. Peer support officers provided contact information for a counselor or other resources for future reference when terminating communication.

The project team utilized a list of mental health professionals with trauma certification and experience working with first responders for counselor services. The department previously vetted these professionals. They provide counseling services for officers after referral by peer support, a supervisor, or after self-referral. As a component of the process improvement, peer

support team members offered to set up a counselor appointment for an officer or drive the officer to the meeting if they needed additional assistance.

### ***Data Collection***

The police department and police union keep records of officer counselor fund utilization. The Craig Tiger Act provides funds for paid leave and counseling for police officers with mental trauma or illness (State of Arizona, 2018). The number of officers utilizing services were tracked as opposed to the names of officers, in order to maintain privacy. After an implementation period of six weeks, officers received a peer support satisfaction survey (see Appendix G). The survey was administered through Qualtrics and used a Likert-scale rating of satisfaction with peer support and the ease of access to counselors. The survey questions were reviewed and approved by the peer support team coordinator and commander, along with other officers in the training unit and the union representative. A response section allowed for the entry of the number of contacts by peer support that triggered counseling attendance, if at all. Demographics were not collected to ensure the anonymity of the respondents. Data were stored on a password-protected electronic website (Qualtrics) to protect against possible identification risks. In addition, all survey participants were assigned a number to avoid participant identification. Frequencies and percentages of the survey and fund utilization results were calculated after the project's conclusion.

### ***Funding***

State funds and city funds provided departmental resources, and the Craig Tiger Act funded counseling services and paid leave. The project team provided funds for the video services. No other funding was used for project implementation.

### **Results**

The peer satisfaction survey was accessed by 41 officers, 39 of which completed the survey (n=39). The majority of respondents (n= 14, 35.9%) agreed somewhat with the statement: “I am satisfied with the peer support services at [XX] Police Department.” Of note was that a similar number (n=13, 33.33%) strongly disagreed with the statement: “I am comfortable contacting peer support for assistance with a personal issue.” The most significant response was to the statement: “I can contact peer support for help with a personal issue at home or at work,” with 41.03% (n=16) strongly agreeing.

**Table 1***Peer Support Satisfaction*

Statement	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Total	Mean	Std Deviation
I am satisfied with the peer support services at XXX Police Department	12.82% (5)	17.95% (7)	17.95% (7)	35.9% (14)	15.38% (6)	39	3.23	1.28
If I contact peer support, I will receive assistance with my problem	5.26% (2)	5.26% (2)	23.68% (9)	42.11% (16)	23.68% (9)	38	3.74	1.10
My supervisors support my mental health and wellness needs	7.69% (3)	23.08% (9)	12.82% (5)	35.9% (14)	20.51% (8)	39	3.38	1.27

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I am comfortable contacting peer support for assistance with a personal issue	33.33% (13)	17.95% (7)	7.69% (3)	17.95% (7)	23.08% (9)	39	2.79	1.62
I can contact peer support for help with a personal issue at home or at work	7.69% (3)	7.69% (3)	15.38% (6)	28.21% (11)	41.03% (16)	39	3.87	1.25

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A substantial number of respondents (n=29, 74.4%) reported they had contact with peer support in the past. Of those with peer support contact, 50% (n= 14) strongly agreed that the peer support volunteer was compassionate. When evaluating peer support as knowledgeable, 32.14% (n=9) strongly agreed, and 35.71% (n=10) somewhat agreed. For the statement that the peer support team member treated them respectfully, 78.57% (n=22) strongly agreed.

**Table 2**

*Peer Support Recent Contact*

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Statement	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Total	Mean	Std Deviation
My peer support officer was compassionate	3.57% (1)	3.57% (1)	14.29% (4)	28.57% (8)	50.00% (14)	28	4.18	1.04
My peer support officer was knowledgeable	0.00%	14.29% (4)	17.86% (5)	35.71% (10)	32.14% (9)	28	3.86	1.03

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The peer support team member treated me respectfully	3.57% (1)	0.00%	7.14% (2)	10.71% (3)	78.57% (22)	28	4.61	0.90
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A small portion of officers (n=11, 28.95%) answered that they had contact with a counselor after their supervisor or peer support team referral. Of these officers, 45.45% (n=5) strongly agreed they could get an appointment when needed, and 45.45% (n=5) somewhat agreed they were able to get an appointment when needed. Only 27.27% (n=3) stated they strongly agreed that their counselor was empathetic, with 45.45% (n=5) reporting they were neutral on this statement. The majority (n=6, 54.55%) believed their counselor understood the demands of law enforcement. Only one respondent strongly disagreed with this statement (n=1, 9.09%).

**Table 3**

*Counselor Satisfaction*

Statement	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Total	Mean	Std Deviation
I was able to get an appointment when needed	0.0%	0.0%	9.09% (1)	45.45% (5)	45.45% (5)	11	4.36	0.64
I felt my counselor was empathetic	0.0%	9.09% (1)	45.45% (5)	18.18% (2)	27.27% (3)	11	3.64	0.98
I felt my counselor understood the demands	9.09% (1)	0.0%	27.27% (3)	9.09% (1)	54.55% (6)	11	4.00	1.28

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Respondents were asked to report after how many visits by peer support they had contact with a counselor, if at all. Twenty-two officers responded, and 12 (54.5%) said they sought counseling services independently, without peer support contact. 27.3% (n=6) reported they sought counseling after one contact with peer support. The remaining responses (n=4, 18%) ranged from two to 20 interactions before seeking counseling.

Data were collected on the number of officers accessing Craig Tiger Act funds, and counseling visits attended in December for pre-intervention comparisons. In December 2021, 10 officers accessed funds and attended 22 mental health professional visits. The same data were collected for March 2022, post-intervention. In March, 15 officers used counseling funds and made 46 mental health professional visits.

The project's results provided valuable information for the department on officer satisfaction with peer support services and counseling services. The administered survey also allowed officers to leave comments with ideas for future improvements to current mental health resources. These comments were not included in the data analysis of this report; however they were delivered to the police training unit sergeant, the union representative, and the commander of the professional services department for review. Additional changes to departmental policies and procedures may arise from the survey results. The educational interventions (video and quick reference guide) will continue to provide useful mental health information for both officers and sergeants in the department for future use.

Continued use and support of the implemented interventions are possible. The video was distributed via the department's inter-office communication program and can be used yearly

during annual officer training. The department can continue to disperse reference sheets to sergeants as they will remain applicable for detecting mental illness warning signs. Also, the department's training unit can easily update the posters and video as department services and contact information for various individuals change. Lastly, the peer support team can continue their increased officer contact protocol and adjust it as needed based on officer feedback and experience.

### **Discussion**

Law enforcement officers have high levels of mental health issues and stress in their daily jobs, with many barriers to seeking care. Multiple studies on interventions for treating mental health issues in first responders, law enforcement, and military personnel show the benefits of trauma-focused counseling, mental health education, and peer support. Peer support programs have improved officer mental health in New York City, Boston, Chicago, and Los Angeles (Papazoglou & Andersen, 2014). As a result, this project hypothesized that increasing peer support contact, providing officer and management education, and promoting mental health resources would improve satisfaction with the peer support process and increase utilization of counseling funds in the department.

The survey results show that officers are moderately satisfied with the peer support team and services but are uncomfortable contacting the peer support team. It is possible that because officers reported moderate satisfaction while also reporting concerns about communicating with peer support, there remains a level of stigma in admitting the need for help. Also, officers may not trust the peer support team or the referral process because of widespread concerns about confidentiality. The peer support team can address this issue through promotional methods emphasizing their strict discretion. The team leader could also provide training on the need for

all volunteers to be conscientious about keeping officer confidences private to maintain the validity and usefulness of their services.

Based on the survey results, peer support contact also did not correlate to increased help-seeking behaviors. Additional changes by the department may increase help-seeking behaviors. For example, many studies indicate the benefit of organizational support for mental health programs and treatments, which can increase help-seeking behaviors in police officers (Demou et al., 2020; Price, 2017; Violanti et al., 2017). In addition, mandatory counseling for officers has shown effectiveness in reducing the stigma associated with help-seeking behaviors by normalizing the procedure and reducing anxiety associated with counselor visits (Price, 2017; Wheeler et al., 2018). Efforts could start in the academy with mental health training and continue with yearly training and counseling for all officers (White et al., 2016).

In the survey by Drew & Martin (2021), 91.6% of officers reported peer support as an effective intervention. In the same survey, 91.4% named mental health stigma a barrier to help-seeking. These results suggest that peer support on its own may not be enough to reduce mental health stigma. There may be additional ways to improve peer support teams to increase their effectiveness in reducing stigma. For example, Short (2020) reports that police officers, who often see civilians in crisis, can benefit from peers sharing their struggle with mental health issues. This could be attained by having veteran or current officers share stories during training or newsletters with the department. Ideally, peer support team members should have experience attending counseling themselves and history of critical incident exposure during their career to provide better support to their fellow officers (Gill et al., 2018). The peer support team could also improve training to increase their mental health literacy and knowledge of intervention

techniques. Lastly, they could seek psychological providers as consults to improve their supportive skills and manage challenging cases (Papazoglou & Andersen, 2014).

Much of the literature supports using various techniques to support mental health in law enforcement, focusing on the particular needs of the population (Lanza et al., 2018). This interventional project employed both education and peer support changes to reduce mental health stigma and promote departmental resources. Some studies have found that instruction on mental illness and coping techniques can reduce stereotypes associated with mental illness and help-seeking (Short, 2020). As mentioned previously, police departments should start education on law enforcement's stress and mental challenges and ways to cope with these issues in the academy (Wheeler et al., 2018). Departmental education in one session is clearly not enough to reduce organizational and personal stigma toward mental health in LEOs. The department needs to make policy changes for procedural practices and yearly training to address this complex issue. Education on mental health challenges particular to law enforcement and various ways to cope with these challenges should occur yearly. Organizational leadership should support the education and mental health resources and incorporate mental health teaching into academy training (National Consortium on Preventing Law Enforcement Suicide, 2020).

In evaluating responses on counselors used by the officers, many were satisfied with the ease of getting an appointment (45.45%). Still, they were neutral on the level of empathy of the counselor, and only 54.55% felt that the counselor did understand the demands of law enforcement (27.27% were neutral on this statement). Counselors associated with providing services to a police department need to be aware of and trained on the particularities and strains of law enforcement (Lanza et al., 2018). Similarly, primary care providers also need to recognize the unique needs of the police and treat them medically to manage their distinctive

cultural factors and associated psychological issues (Lees et al., 2019). Continued careful vetting of qualified and experienced counselors can provide the department's staff with a helpful resource list for psychological services.

Fund utilization and visit results show a slight increase in officers using counseling funds, with double the number of visits. The increase in benefit utilization could plausibly be attributed to project interventions. It is impossible to isolate which intervention caused the increase or if it was a combination of factors or a random increase. It would have been ideal to collect data over multiple months to determine if the fund usage increase was arbitrary or gradual. It would also be helpful to measure fund utilization after only one intervention as opposed to multiple interventions, which makes it challenging to correlate the real motivating factor.

Limitations of this project include a relatively small number of responses to the survey (n=39). The department has approximately 320 officers, making the response rate around 12%. Additional survey responses would add validity to the project's results. Also, if multiple departments had been surveyed, the results would be more generalizable to various police populations. The project's time was shortened because the site champion moved to a different position in the department, and the window for annual training was missed. The original plan included an in-person educational session during annual training, so further delays were required to create an educational video and secure a new site champion. A more extended implementation period may have shown more significant improvements in counselor fund utilization with time for the peer support members to reach more officers and collect more data.

Another limitation was the ability to monitor the peer support contact frequency and referral process. The project team received assurance that these process changes would take place, but they could not provide encouragement or monitoring of activities. The initial site

champion was the peer support team coordinator and would have been able to oversee peer support processes. Due to the staffing changes discussed, the peer support process changes may have been ineffective or unsupported; thus, it is difficult to conclude that frequency of contact with peer support influences officer utilization of counseling services.

Further efforts to reduce stigma in this department are essential to promote officer buy-in for department resources. The peer support team needs to focus on confidentiality, ease of contact, and adequate training or professional support to guide peer support officers correctly. A mental health care professional can train and provide consultation for peer support team members. Additionally, the department could give officers the list of vetted counselors directly, especially since those that seek counseling do so without first contacting the peer support team. Future projects could provide further education and success stories of officers seeking help. Also, a project evaluating the effect of a mandatory counseling program on officer mental health outcomes would be helpful.

Improving mental health in police departments is essential for officers and the public. Further interventional projects in this area would benefit the current understanding of best practices for police departments seeking to improve the mental health of their officers.

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Appendix A

Evaluation Table

**Table A1**  
*Quantitative Evaluation Tables*

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
<p><b>Joyce et al. (2019)</b></p> <p>Resilience@ Work Mindfulness Program: Results from a cluster randomized controlled trial with first responders</p> <p>Funding: Australian Government Research</p>	<p>Not stated:  Transactional Theory of Stress and Coping</p> <p>Health Belief Model</p>	<p>Design: cluster RCT (blinded subjects)</p> <p>Purpose: Will RAW Mindfulness Program increase resilience among emergency service workers</p>	<p><b>N=143</b> IG =60 CG=83</p> <p><b>Demographics:</b> all firefighters &gt;90% male, 42 years, more than 20 years served</p> <p><b>Site:</b> Online, 1 in-person presentation</p>	<p><b>IV=RM</b></p> <p><b>DV= resilience</b></p> <p>Secondary outcomes=min dffulness Cognitive fusion Avoidance Self- compassion Optimism Coping Life engagement</p>	<p>Instruments:</p> <p>Connor-Davidson Resilience Scale (Cronbach alpha .81- .88)</p> <p>Brief Resilience Scale (.83-.90)</p> <p>Freiburg Mindfulness Inventory (.86)</p> <p>Cognitive Fusion Questionnaire (.89- .93)</p>	<p>Mixed-model repeated measures</p> <p>Unstructured variance- covariance matrix</p> <p>A priori planned per- protocol analyses</p> <p>2-sided alpha level of .05 and 95%</p>	<p>RM 1.3 increase in resilience score, CG 0.73 (95% CI 0.38- 1.06)</p> <p>DV Largest improvement in resilience among RM (p=.002)</p>	<p>LOE: II</p> <p><b>Feasibility:</b> feasible, online training</p> <p><b>Strengths:</b> Intervention improves resilience, easy to use</p> <p><b>Weakness:</b> self-report by participant, large attrition (only 37% finished all</p>

**Key:** ASD= acute stress disorder, BEP= brief eclectic psychotherapy, CAPS= Clinician Administered PTSD Scale, CG= control group, CI= confidence interval, DV= dependent variable, ESS= Epworth Sleepiness Scale, EMDR= eye movement desensitization and reprocessing, HYP= Holistic yoga program, IG = intervention group, IV= independent variable, KSS=Karolinska Sleepiness Scale, LOE= level of evidence, N=number, PCL-5= PTSD checklist for DSM-5, PCL-D=PTSD Checklist for DSM-5, PHQ-9=Patient Health Questionnaire, PRISMA= Preferred Reporting Items for Systematic Review and Meta-Analyses, PROMIS= Patient Reported Outcomes Measurement Information System, PSS=Perceived Stress Scale, PTSD= post-traumatic stress disorder, QCT=quasi-randomized controlled trial, RAW= Resilience@Work, RCT= randomized controlled trial, RM= RAW Mindfulness program, SCID=Structured Clinical Interview for DSM Disorders, TF-CBT= trauma-focused cognitive behavioral therapy, VA= Veteran’s Affairs, WLP= Wellness lifestyle program

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
Training Program Scholarship and a Ph.D. grant  Location: Australia  Bias: Authors have interest in a company providing resilience training					Acceptance and Action Questionnaire (.84) Self-Compassion Scale (.85)  Life Orientation Test-Revised (.73)  Brief-Coping Orientation Life Engagement Test (.72-.87)	confidence intervals		program), not a diverse population  <b>Conclusion:</b> Online resilience training practical for improving resilience in first responders
<b>Borman et al. (2018)</b>  Individual treatment of posttraumatic stress disorder using mantram repetition: A	None stated:  Transactional Theory of Stress and Coping  Rogers' Science of Unitary	Design: two-arm, two-site randomized controlled trial  Purpose: mantram repetition	N=173  <b>Demographics:</b> >80% male, >60% white, >30% married, 70-80% unemployed	IV1=mantram repetition  IV2=present-centered therapy  DV1=PTSD symptoms	Instruments:  Insomnia Severity Index (0.90)  PHQ-9 (0.86)  State-Trait Anger Inventory-Short Form (0.89-0.96)	Linear mixed models  Cohen's d  Alpha 0.05	Mantram group with significant CAPS improvement than present-centered therapy (-	LOE: II  <b>Feasibility:</b> feasible  Cost: low-cost  <b>Strengths:</b> met goal number,

**Key:** ASD= acute stress disorder, BEP= brief eclectic psychotherapy, CAPS= Clinician Administered PTSD Scale, CG= control group, CI= confidence interval, DV= dependent variable, ESS= Epworth Sleepiness Scale, EMDR= eye movement desensitization and reprocessing, HYP= Holistic yoga program, IG = intervention group, IV= independent variable, KSS=Karolinska Sleepiness Scale, LOE= level of evidence, N=number, PCL-5= PTSD checklist for DSM-5, PCL-D=PTSD Checklist for DSM-5, PHQ-9=Patient Health Questionnaire, PRISMA= Preferred Reporting Items for Systematic Review and Meta-Analyses, PROMIS= Patient Reported Outcomes Measurement Information System, PSS=Perceived Stress Scale, PTSD= post-traumatic stress disorder, QCT=quasi-randomized controlled trial, RAW= Resilience@Work, RCT= randomized controlled trial, RM= RAW Mindfulness program, SCID=Structured Clinical Interview for DSM Disorders, TF-CBT= trauma-focused cognitive behavioral therapy, VA= Veteran's Affairs, WLP= Wellness lifestyle program

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
randomized clinical trial  Funding: V.A. research  Location: USA  Bias: None	Human Beings	will reduce PTSD prevalence and symptom severity more than present- centered therapy	<b>Site:</b> San Diego and Bedford VA Medical Centers	<b>DV2=PTSD</b> symptom severity  Present- centered therapy=suppo rtive problem- solving	Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (0.86)  Five Facet Mindfulness Questionnaire (0.89)  World Health Organization Quality of Life (0.87)		9.98, 95% CI= -3.63, -16.00, d=0.49))  2-month between group difference (-9.34, 95% CI= - 1.50, - 17.18, d=0.46)	effective treatment, low cost, 78% retention  <b>Weakness:</b> smaller sample size, lack of therapist measuring outcomes  <b>Conclusion:</b> mantram repetition more effective at present- centered therapy at reducing PTSD and insomnia
<b>Davis et al. (2020)</b>	None stated:	Design:	<b>N=209</b>	<b>IV1=HYP</b>  <b>IV2=WLP</b>	<b>Instruments:</b>  CAPS-5 (0.94)	Two-sided two-sample t- test	HYP: based on CAPS-5,	LOE: II

**Key:** ASD= acute stress disorder, BEP= brief eclectic psychotherapy, CAPS= Clinician Administered PTSD Scale, CG= control group, CI= confidence interval, DV= dependent variable, ESS= Epworth Sleepiness Scale, EMDR= eye movement desensitization and reprocessing, HYP= Holistic yoga program, IG = intervention group, IV= independent variable, KSS=Karolinska Sleepiness Scale, LOE= level of evidence, N=number, PCL-5= PTSD checklist for DSM-5, PCL-D=PTSD Checklist for DSM-5, PHQ-9=Patient Health Questionnaire, PRISMA= Preferred Reporting Items for Systematic Review and Meta-Analyses, PROMIS= Patient Reported Outcomes Measurement Information System, PSS=Perceived Stress Scale, PTSD= post-traumatic stress disorder, QCT=quasi-randomized controlled trial, RAW= Resilience@Work, RCT= randomized controlled trial, RM= RAW Mindfulness program, SCID=Structured Clinical Interview for DSM Disorders, TF-CBT= trauma-focused cognitive behavioral therapy, VA= Veteran’s Affairs, WLP= Wellness lifestyle program

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
<p>Symptoms improve after a yoga program designed for PTSD in a randomized controlled trial with veterans and civilians</p> <p>Funding: Merit Review Award</p> <p>Location: USA</p> <p>Bias: Monetary reward for participants</p>	<p>Transactional Theory of Stress and Coping</p> <p>Health Promotion Model</p>	<p>Randomized controlled trial</p> <p>Purpose: Compare holistic yoga (HYP) to wellness lifestyle yoga (WLP) in PTSD symptom severity improvement</p>	<p>Demographics: 50 average age, 66% male, 61% white, 45% employed, 80% not used yoga before</p> <p>Site: USA</p>	<p><b>DV1</b>=PTSD symptom severity</p> <p><b>DV2</b>=anger, depression, sleep, anxiety</p> <p><b>Definitions:</b></p> <p><b>Holistic yoga (IV1)</b> =developed by yoga therapist to focus on breathing, postures, and relaxation</p> <p><b>Wellness lifestyle (IV2)</b> =developed by clinical psychologist,</p>	PCL-5 (0.76-0.97)	<p>Chi-square test</p> <p>Cohen's d effect sizes</p>	<p>reduced PTSD severity more than WLP (M=-5.4, effect size = 0.46, p&lt;.001), but not at 7-month follow-up</p> <p>HYP reduced PTSD based on PCL-5 (M diff=-6.0, p=.001), but not at 7 month follow-up</p>	<p><b>Feasibility:</b> feasible, may be best to do online to avoid dropout</p> <p>Cost: low-cost, pay instructor</p> <p><b>Strength:</b> good sample size, multiple outcome measures</p> <p><b>Weakness:</b> dropout major factor, no pure control group</p> <p><b>Conclusion:</b> yoga possible effective treatment for</p>

**Key:** ASD= acute stress disorder, BEP= brief eclectic psychotherapy, CAPS= Clinician Administered PTSD Scale, CG= control group, CI= confidence interval, DV= dependent variable, ESS= Epworth Sleepiness Scale, EMDR= eye movement desensitization and reprocessing, HYP= Holistic yoga program, IG = intervention group, IV= independent variable, KSS=Karolinska Sleepiness Scale, LOE= level of evidence, N=number, PCL-5= PTSD checklist for DSM-5, PCL-D=PTSD Checklist for DSM-5, PHQ-9=Patient Health Questionnaire, PRISMA= Preferred Reporting Items for Systematic Review and Meta-Analyses, PROMIS= Patient Reported Outcomes Measurement Information System, PSS=Perceived Stress Scale, PTSD= post-traumatic stress disorder, QCT=quasi-randomized controlled trial, RAW= Resilience@Work, RCT= randomized controlled trial, RM= RAW Mindfulness program, SCID=Structured Clinical Interview for DSM Disorders, TF-CBT= trauma-focused cognitive behavioral therapy, VA= Veteran's Affairs, WLP= Wellness lifestyle program

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
				includes yoga and walking and education				PTSD as an adjunct to standard treatment
<b>Gulliver et al. (2016)</b>  Country: USA  Funding: FEMA award to one author Career Development Award from VA for another author  Bias: self- selection bias potential	Not stated:  Social Cognitive Theory or Health Promotion Model	Design: RCT  Purpose: determine effectiveness of <i>Reach Out</i> , a peer- training program conducted in two formats (video and in-person) to encourage behavioral health use by firefighters	<b>N=172</b>  Demographics: 38.7 years old average (SD=7.4), 80% male, 73% white, 14.4 years education, 73% line firefighters  Setting: in- person training and video training, one control group	<b>IV: Reach Out</b> in-person training  <b>IV2: Reach Out</b> video training  IV 3 Control  <b>DV1:</b> treatment adherence  <b>DV2:</b> treatment credibility	Instruments:  Frequency of Attempt to Intervene Questionnaire (designed for this study to determine ratios)  Credibility/Expectancy Questionnaire  Treatment Adherence Checklist (Created for this study) 35-item yes/no  *Validity/Reliability – unknown for all items	Statistical Tests used to analyze data:  RM ANCOVA  Univariate ANCOVA  Bonferroni correction  ANCOVA	Reported as: Successful interventions: Video training superior to control at 3-months <i>M diff</i> .60, <i>p</i> <.001, group training superior to control <i>M diff</i> = .30, <i>p</i> =.004  Treatment credibility:	LOE: II  <b>Strengths:</b> random groupings, control group, treatment effective, low-cost implications  <b>Weakness:</b> somewhat small sample size, not very diverse sample,

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			Exclusion: active firefighters only  Attrition: 89% completed 3- month interview	<b>DV3:</b> attempts to intervene			video training significantly more credible than control <i>M</i> <i>diff</i> = 2.909, <i>p</i> =.002  Attempts to intervene: pretest ( <i>M</i> =.55, <i>SD</i> =.94), 3- months ( <i>M</i> .77, <i>SD</i> 1.11)	<b>Feasibility:</b> video trainings less costly and better adherence  <b>Conclusion:</b> <i>Reach Out</i> possible effective intervention to help firefighters identify others in distress and refer to treatment
<b>Alden et al. (2020)</b>  Systematic literature review of	Inferred to be Transactional Model of Stress and Coping	Design: systematic review  Purpose: Evaluate effectiveness	<b>N=21 studies</b>  Databases: Medline, EBM Reviews, PsychINFO, CINAHL,	<b>IV1:</b> psychological intervention  <b>DV1:</b> PTSD  <b>DV2:</b> ASD	Instruments:  Clinician judgment  Mississippi Scale for Combat-Related PTSD (M-PTSD,	PRISMA checklist  Munn’s Prevalence Critical	Support for trauma- based psychothe rapy as	LOE: I  <b>Applicability</b> : Useful for police

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psychological interventions for first responders  Funding: WorkSafeBC grant  Location: multi-national  Bias: unpublished work not surveyed		of psychological interventions for PTSD in police, firefighters, and paramedics	PILOTS, Web of Science  Inclusion criteria: studies from 1980-2018, all languages, contains psychological intervention, involves police, firefighters, paramedics, PTSD, depression, or anxiety were outcome measures	<b>DV3:</b> depression  <b>DV4:</b> anxiety	sensitivity 93%, specificity 88%)  Brief Depression Inventory (0.86)  Beck Anxiety Inventory (.94)  CAPS-5 (0.94)  PTSD Symptom Scale (PSS) (0.97)  Post-traumatic Stress Diagnostic Scale (0.92)  Screen for Post-traumatic Stress Symptoms (sensitivity/specificity 89%)	Appraisal Instrument	effective treatment for PTSD  EMDR, BEP, and TF-CBT have potential as effective treatments for first responders  Leave from work not shown to help improve PTSD symptoms	officers, feasible  <b>Strengths:</b> some new evidence, 6 of 8 RCTs moderate to high quality, more detailed treatment protocols, RCTs had cultural diversity  <b>Limitations:</b> Scarcity of studies, lack of RCTs, absence of

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					Hospital Anxiety and Depression Scale (0.83)  Impact of Events Scale (0.56-0.74)  General Health Questionnaire (0.79)			controls groups <b>Conclusion:</b> inability to make practice recommendations based on limited research
<b>Kitchiner et al. (2019)</b>  Active duty and ex-serving military personnel with post-traumatic stress disorder treated with psychological therapies: systematic	Inferred to be Roy's Adaptation Model	Design: systematic review and meta-analysis of RCTs  Purpose: determine effectiveness of psychological therapies in decreasing	<b>N= 24</b> <b>n=2386</b>  Databases: PubMed, PsychINFO, EMBASE, and Cochrane Library  <b>Inclusion</b> criteria: RCTs with psychological therapy as	<b>IV1:</b> psychological therapies  <b>DV2:</b> PTSD symptoms  Psychological therapies: psychoeducation, relaxation, therapy, EMDR, exposure	Instruments:  CAPS (0.94)  SCID (0.85)  PSS (0.97)  PCL-D	Assessed for risk of bias using Cochrane criteria  Meta-Analysis: standardized mean differences, I2 statistic, chi-squared test of heterogeneity, forest plots, fixed-effect meta-analyses	No psychotherapy method can be recommended strongly, except TF-CBT methods as a whole  EMDR not recommend for combat-related PTSD	LOE: I  <b>Applicability</b> : more applicable to soldiers, but shows TF-CBT useful for PTSD  <b>Strengths:</b> followed Cochrane

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review and meta-analysis  Funding: unfunded  Location: United Kingdom  Bias: publication bias, only English language studies		PTSD in veterans and active-duty military	intervention for PTSD, active duty and veterans, control group, 70% of participants diagnosed with PTSD for 3 months at least, 18 or older	therapy, TF-CBT				Collaboration guidelines, thorough review of studies, attempted to reduce bias  <b>Limitations:</b> sample sizes small in some studies, several were older studies of poor quality  <b>Conclusion:</b> TF-CBT should be first-line treatment for

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								PTSD in active-duty/veterans, EMDR not recommended as first-line, needs further evaluation
<p><b>Niles et al. (2018)</b></p> <p>A systematic review of randomized trials of mind-body interventions for PTSD</p> <p>Funding: VA Clinical Science Research and</p>	<p>Inferred to be Health Promotion Model</p>	<p>Design: Systematic Review of RCTs</p> <p>Purpose: Assess effectiveness of complementary and integrative therapies for reducing PTSD in</p>	<p><b>N= 20 articles</b></p> <p><b>Databases:</b> PubMed, PILOTS, PsychINFO, SocINDEX, PsychARTICLES</p> <p><b>Inclusion criteria:</b> articles f Jan. 1985-Jan. 2017, RCTs involving complementary</p>	<p><b>IV1:</b> mindfulness</p> <p><b>IV2:</b> yoga</p> <p><b>IV3:</b> relaxation</p> <p><b>DV:</b> PTSD symptoms</p> <p>Mindfulness: focus on present/meditation</p>	<p>Instruments:</p> <p>CAPS (0.94)</p> <p>PCL-D</p> <p>PHQ-9 (0.86)</p>	<p>PRISMA guidelines</p>	<p>IV 1 Mindfulness has significant impact on reducing PTSD symptoms</p> <p>IV2 Yoga has moderate to large effect sizes, effective for PTSD</p> <p>IV 3 Relaxation can improve</p>	<p>LOE: I</p> <p><b>Application:</b> feasible, mostly inexpensive, self-managed, effective</p> <p><b>Strengths:</b> support for mind-body treatments found, one</p>

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Development, National Center for Complementa ry and Integrative Health  <b>Location:</b> USA  <b>Bias:</b> publication bias, population studied mostly veterans		veterans and military	therapies, PTSD, and military or veteran personnel	<b>Relaxation:</b> biofeedback, imagery, visualization, progressive muscle relaxation  <b>Yoga:</b> integrative practice of postures and breathing			PTSD symptoms	large-scale trial shows mindfulness superior to present- centered therapy  <b>Limitations:</b> small samples, lack of control groups, un- blinded trials, did not examine other factors, such as quality of life  <b>Conclusion:</b> mind-body therapy can

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								be useful in improving PTSD symptoms
<p><b>Lees et al. (2019)</b></p> <p>A systematic review of the current evidence regarding interventions for anxiety, PTSD, sleepiness and fatigue in the law enforcement workplace</p>	<p>Inferred to be Roy’s Adaptation Model</p>	<p><b>Design:</b> Systematic Review</p> <p><b>Purpose:</b> determine prevalence of PTSD, anxiety and fatigue in law enforcement, the effects of these issues on job performance, and determine which interventions are</p>	<p><b>N=43 studies</b></p> <p>Databases: EMBASE, OVID MEDLINE, PsycINFO</p> <p>Inclusion criteria: 2009-July 2016, English language, peer-reviewed, law enforcement officers, and presence of psychological disorders</p>	<p><b>IV:</b> interventions</p> <p><b>DV1:</b> PTSD</p> <p><b>DV2:</b> anxiety</p> <p><b>DV3:</b> fatigue</p> <p><b>DV4:</b> sleepiness</p> <p>Interventions: therapy (counseling, support, psychotherapy), behavioral therapies, exercise therapies,</p>	<p>Instruments: fMRI</p> <p>Epworth Sleepiness Scale (ESS) (0.82)</p> <p>Karolinska Sleepiness Scale (KSS)</p> <p>Ambulatory blood pressure monitor</p> <p>Patient Reported Outcomes Measurement Information System (PROMIS)</p>	<p>Systematic search based on primary and secondary search measures</p>	<p>Psychosocial interventions supported for use in law enforcement (education, return to work programs, resilience training, advanced coping), symptoms of PTSD reduced with these interventions (DV 1-4)</p>	<p>LOE: I</p> <p><b>Strengths:</b> large number of studies, show benefits of psychosocial interventions</p> <p><b>Weaknesses:</b> Only English language articles, mostly observational research, limited</p>

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Funding: New South Wales Police  Location: Australia  Bias: publication bias, English language only included		successful at improving these symptoms	Exclusion criteria: psychologic disorders not present (PTSD, anxiety, fatigue, and sleepiness), and did not contain interventions or effects on work, mental state, health, or lifestyle	management and education programs, and others (yoga, meditation, diet, acupuncture, alternative medications)				rigorous/contr olled studies  <b>Conclusions:</b> psychosocial interventions beneficial for law enforcement, but more rigorous studies needed  <b>Applicability</b> : limited evidence, but may be effective for police mental health, some interventions

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								are feasible, such as education)
<p><b>Wild et al. (2020)</b></p> <p>The effectiveness of interventions aimed at improving well-being and resilience to stress in first responders: A systematic review</p> <p>Funding: Mind grant, NIHR Oxford</p>	Inferred to be Symptom Management Model	<p>Design: Systematic review and meta-analysis</p> <p>Purpose: evaluate interventions for first responders for effectiveness at improving well-being, resilience, and stress management</p>	<p><b>N=13</b> <b>n= 1,264</b></p> <p>Databases: Cochrane and Campbell Collaboration, EMBASE, IBSS, Medline, PILOTS, PubMed, PsychINFO, and SCOPUS</p> <p>Inclusion criteria: RCTs or QCT, males/female 18 or older, first responders, non-pharmacologic</p>	<p><b>IV:</b> interventions</p> <p><b>DV1:</b> well-being</p> <p><b>DV2:</b> resilience</p> <p><b>DV3:</b> coping</p> <p><b>DV4:</b> stress</p> <p><b>DV5:</b> suicidal ideation</p> <p><b>DV6:</b> mindfulness</p> <p><b>DV7:</b> quality of life</p>	<p>Instruments: Maslach Burnout Inventory</p> <p>Utrecht Work Engagement Scale General Health Questionnaire-12</p> <p>Maastricht Questionnaire</p> <p>Karolinska Sleep Questionnaire</p> <p>PCL-C (Civilian)</p> <p>Concise Health Risk Tracking scale</p> <p>PSS</p>	<p>Cochrane Collaboration’s tool</p> <p>Effect sizes calculated using Cohen’s <i>d</i> and CI</p>	<p>Findings: exercise/imagery largest group effect sizes</p> <p>Higher number sessions improved outcomes (DV 1- 9)</p> <p>Insufficient data to conclude if EMDR is effective</p>	<p>LOE: I</p> <p><b>Strengths:</b> rigorous protocol, first systematic review of RCT and QCT on effectiveness of interventions for first responders at improving well-being</p> <p><b>Weaknesses:</b> Low number</p>

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Health Biomedical Research Centre  Bias: Only English articles, gray literature not searched			interventions, outcome measures of physical/mental health	<b>DV8:</b> mental health symptoms (anxiety, depression, PTSD)  <b>DV9:</b> physical health (sleep, substance abuse, fatigue)  Well-being: feeling well and functioning well to individual preference  First responders: ambulance, fire, EMT,	Oldenburg Burnout Inventory  Five Facet Mindfulness Questionnaire  Depression Anxiety Stress Scales			of RCT/QCTs on this topic, low quality of evidence, small sample sizes, lack of control groups  <b>Conclusions:</b> further research needed, but exercise/imag ery shows promise  <b>Applicability</b> : appropriate to research topic, exercise is a low-cost intervention,

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				police, search and rescue)				feasible to implement
<p><b>Syed et al. (2020)</b></p> <p>Global prevalence and risk factors for mental health problems in police personnel: A systematic review and meta-analysis</p> <p>Funding: None</p> <p>Location: United States</p>	<p>Inferred to be Roger’s Science of Unitary Human Beings</p>	<p>Design: Systematic review and meta-analysis</p> <p>Purpose: determine prevalence and risk factors for police mental health issues</p>	<p><b>N=13 n=272,463</b></p> <p>Databases: Medline, PsychINFO, EMBASE, Web of Science, AMED, CINAHL, PILOTS, SciVerse Scopus, Cochrane Library, PubMed, ERIC, Global Health Archives, ProQuest Central, OpenGrey, and Google Scholar</p>	<p><b>IV:</b> risk factors for mental health problems in police</p> <p><b>DV:</b> PTSD, anxiety, depression, suicidal ideation, hazardous drinking, and alcohol dependence</p>	<p>Instruments:</p> <p>CAPS (0.94)</p> <p>Self-report instruments (91%)</p>	<p>Estimated prevalence using random-effects meta-analyses, and applied Freeman-Tukey double arcsine transformation</p> <p>Pooled correlation estimates using random/fixed</p>	<p>Findings: 14.2% PTSD (95% CI 10.3%-18.7%, k=29)</p> <p>14.6% depression (95% CI 10.6-18.6%, k=22)</p> <p>9.6% anxiety (95% CI 7.7-</p>	<p>LOE: I</p> <p><b>Strengths:</b> thorough database search, rigorous method</p> <p><b>Weaknesses:</b> comorbid conditions not assessed, most studies cross-sectional, mostly self-report data</p>

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Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
Bias: publication bias			Inclusion criteria: English, Swedish, German language between Jan. 1, 1980 and Oct. 8, 2019 for police-related articles that report on mental health problems, use a validated instrument, had sample of greater than 100, low risk of bias, peer- reviewed			effects meta- analyses  Hartung- Knapp- Sidik- Jonkman method for precision  Correlation effect estimates converted to log odds ratio  Heterogeneit y assessed using <i>I</i> <sup>2</sup> statistic	14.6%, k=10)  8.5% suicidal ideation (95% CI, 6.1- 11.2%, K=10) 5.0% harmful drinking/a lcohol dependen ce (95% CI 3.5- 6.7%, k=7)  Risk factors	<b>Conclusions:</b> mental health problems prevalent in police, early identification and assist beneficial for this population  <b>Applicability</b> : useful support for validity of research on this topic, shows increased rate of mental health issues

**Key:** **ASD**= acute stress disorder, **BEP**= brief eclectic psychotherapy, **CAPS**= Clinician Administered PTSD Scale, **CG**= control group, **CI**= confidence interval, **DV**= dependent variable, **ESS**= Epworth Sleepiness Scale, **EMDR**= eye movement desensitization and reprocessing, **HYP**= Holistic yoga program, **IG** = intervention group, **IV**= independent variable, **KSS**=Karolinska Sleepiness Scale, **LOE**= level of evidence, **N**=number, **PCL-5**= PTSD checklist for DSM-5, **PCL-D**=PTSD Checklist for DSM-5, **PHQ-9**=Patient Health Questionnaire, **PRISMA**= Preferred Reporting Items for Systematic Review and Meta-Analyses, **PROMIS**= Patient Reported Outcomes Measurement Information System, **PSS**=Perceived Stress Scale, **PTSD**= post-traumatic stress disorder, **QCT**=quasi-randomized controlled trial, **RAW**= Resilience@Work, **RCT**= randomized controlled trial, **RM**= RAW Mindfulness program, **SCID**=Structured Clinical Interview for DSM Disorders, **TF-CBT**= trauma-focused cognitive behavioral therapy, **VA**= Veteran’s Affairs, **WLP**= Wellness lifestyle program

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings / Results	Level of Evidence; Application for practice
							include: female, greater trauma, long career, avoidant coping, alcohol use, occupatio nal stress for PTSD	present in this population

**Key:** ASD= acute stress disorder, BEP= brief eclectic psychotherapy, CAPS= Clinician Administered PTSD Scale, CG= control group, CI= confidence interval, DV= dependent variable, ESS= Epworth Sleepiness Scale, EMDR= eye movement desensitization and reprocessing, HYP= Holistic yoga program, IG = intervention group, IV= independent variable, KSS=Karolinska Sleepiness Scale, LOE= level of evidence, N=number, PCL-5= PTSD checklist for DSM-5, PCL-D=PTSD Checklist for DSM-5, PHQ-9=Patient Health Questionnaire, PRISMA= Preferred Reporting Items for Systematic Review and Meta-Analyses, PROMIS= Patient Reported Outcomes Measurement Information System, PSS=Perceived Stress Scale, PTSD= post-traumatic stress disorder, QCT=quasi-randomized controlled trial, RAW= Resilience@Work, RCT= randomized controlled trial, RM= RAW Mindfulness program, SCID=Structured Clinical Interview for DSM Disorders, TF-CBT= trauma-focused cognitive behavioral therapy, VA= Veteran’s Affairs, WLP= Wellness lifestyle program

**Appendix B**  
**Synthesis Table**

**Table B1**

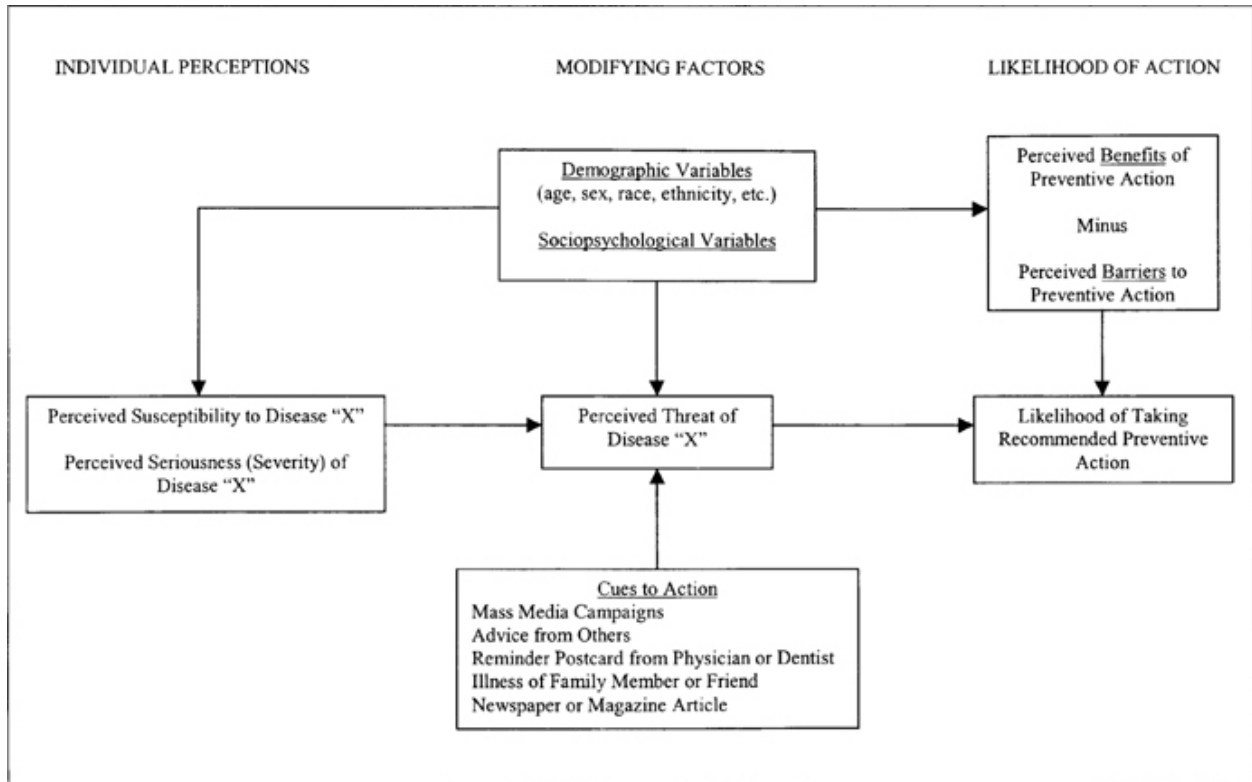
<i>Citation</i>	Joyce et al. (2020)	Borman et al. (2018)	Davis et al. (2020)	Gulliver et al. (2016)	Alden et al. (2020)	Kitchiner et al. (2019)	Niles et al. (2018)	Lees et al. (2019)	Wild et al. (2020)	Syed et al. (2020)
<i>Design/LOE</i>	Cluster RCT/II	Two-arm RCT	RCT	RCT	SR	SR and meta-analysis of RCTs	SR of RCTs	SR	SR and meta-analysis	SR and meta-analysis
<i>Sample</i>										
n	143	173	209	172	21 studies	24 studies n=2386	20 studies	43 studies	13 studies n=1264	13 studies n=272,463
population	FR	Veterans	Veterans/civilians	Firefighters	FR	Soldiers/veterans	Soldiers/veterans	LEO	FR	LEO
<i>Intervention</i>	RM program	Mantra, PCT	HYP and WLP	Reach Out in-person vs. video training	Psychological intervention	Psychological therapies	Mindfulness, Yoga, Relaxation	Various interventions	Various interventions	Risk factors for mental health issue
<i>Tools</i>										
CAPS			X		X	X	X			X
PHQ-9		X					X			
PSS						X			X	
PCL-5			X			X	X		X	
<i>Outcomes</i>										
Resilience	Mantram effective								Exercise, imagery	
PTSD symptoms		Mantra repetition more effective than PCT	HYP more effective than WLP, but not at 7-month follow-up		TF-CBT and CBT reduces PTSD symptoms	Only TF-CBT recommended strongly	Mindfulness, Yoga, and relaxation significant	Psychosocial interventions supported		
Stress									Exercise, imagery largest effect	
depression					Work leave and CBT can reduce symptoms					
anxiety					Inconclusive					
Well-being									Exercise, imagery largest effect size	LEO have high mental health issues
<i>Feasibility</i>	Online training	Low-cost, basic education	Online possible, group exercise	Video trainings may be less expensive, better adherence	Useful for police officers, require money, professionals	Requires money, professionals	Inexpensive, self-managed, effective	Applicable to police, may require professionals	Exercise and imagery inexpensive, self-managed	Supports research topic

**Key:** CBT= cognitive behavioral therapy, FR= first responders, HYP= holistic yoga, program, LEO=law enforcement officers, PCT= present-centered therapy, RCT=randomized controlled trial, RM=RAW mindfulness program, SR=systematic review, TF-CBT=trauma-focused cognitive behavioral therapy, WLP=wellness lifestyle program

Appendix C

Health Belief Model

Figure 1



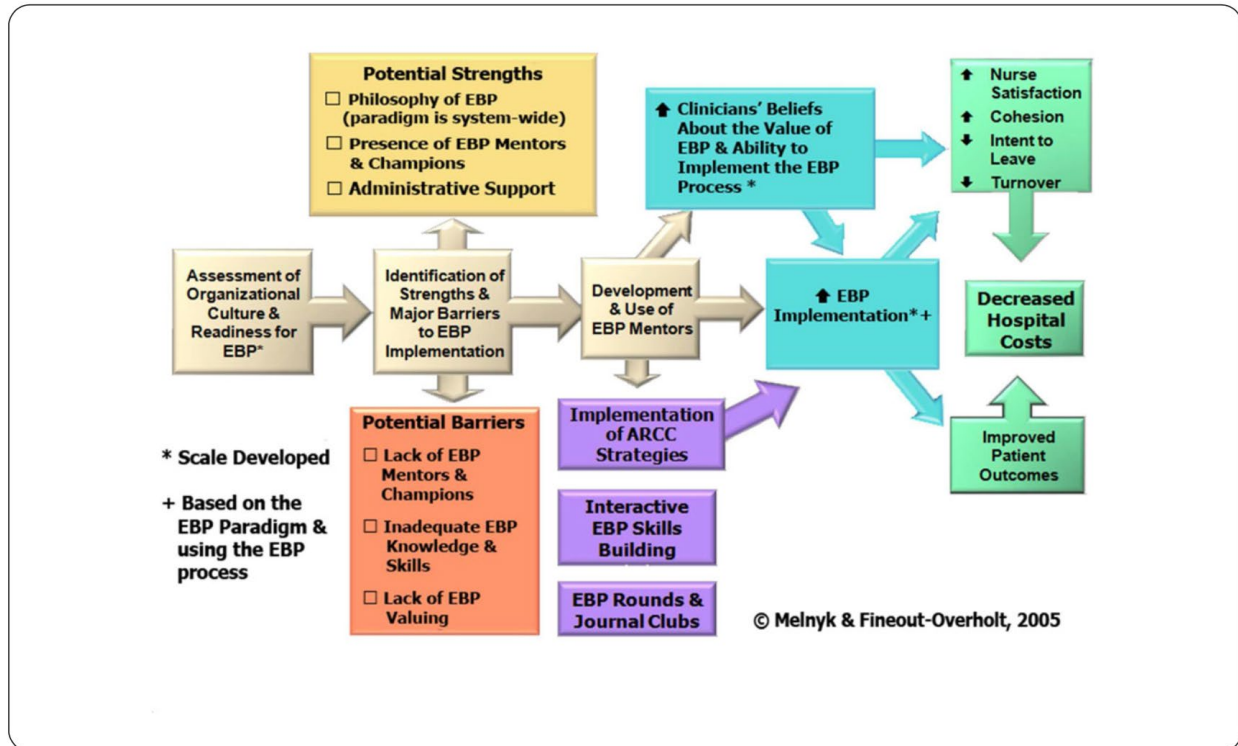
Janz & Becker (1984)

Appendix D

The Advancing Research and Clinical Practice Through Close Collaboration Model

(ARCC)

Figure 2



Melnyk, Fineout-Overholt, & Choy (2016)

## Appendix E

### Peer Support Guideline

# Peer support follow-up process

This guide should be utilized when new referrals are sent to peer support.

## Frequency of contact

- The officer referred to peer support should be contacted weekly for one month.
- If an officer is resistant to weekly contact, this can be reduced to every other week for one month.
- After the first month, the officer should be contacted monthly for three months.
- When terminating contact, ensure officer has number for counseling services, peer support, suicide hotline, EAP support line, and the Police Union representative.
- If you experience poor rapport with an officer, contact the peer support coordinator for referral to a different peer support team member.

## Counseling

Utilize this process for referring an officer to counseling

- Offer to make an initial appointment with a counselor for the officer
- Offer to drive the officer to the first session to provide support if they have never attended counseling before (for in-person sessions only)

## Appendix F

### Warning Sign Reference Guide

# WHEN TO REFER AN OFFICER TO PEER SUPPORT

This form should be used as guidance on when to refer an officer to peer support or counseling.

## CRITICAL INCIDENT EXPOSURE

After exposure to a critical incident while on duty, or an officer exhibiting warning signs, send the officer's information to the XXXX Police Department's Peer Support office at 480-555-4357 (HELP) within 24 hours of the event. A quick referral is critical for officer health and wellness.

### *Warning Signs*

#### Physical appearance:

- Appears tired/exhausted

- Disorganized in appearance
- Impaired on duty
- Mood swings

#### Work performance:

- Increased use of sick leave
- Failure to report for work or late for work
- Strange excuses for tardiness/absence
- Overly aggressive interaction with public/co-workers
- Risk-taking behaviors
- Decreased productivity on shift
- Lack of concentration/attention to detail
- Increase in mistakes at work

#### Employee relationships

- Socially withdrawn (or change in level of activity)
- Lack of participation in department events
- No interest in future in department
- Avoids peers/supervisors
- Borrowing money at work

(Adapted from International Association of  
Chiefs of Police Center for Officer Safety and  
Wellness)

## Appendix G

### Peer Support Satisfaction Survey

Please answer these questions according to the scale below:

1-5 scale: 1= strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree,  
5=strongly agree

- I am satisfied with the peer support services at Tempe Police Department
- My supervisors support my mental health and wellness needs
- I can contact peer support for help with a personal issue at home or at work
- If I contact peer support, I will receive assistance with my problem
- I am comfortable contacting peer support for assistance with a personal issue

If you had contact with peer support answer these questions:

- My peer support officer was compassionate
- My peer support officer was knowledgeable
- The peer support team member treated me respectfully

If you had contact with a counselor answer these questions:

- I was able to get an appointment when needed
- I felt my counselor was empathetic

- I felt my counselor understood the demands of law enforcement

After how many contacts by a peer support team member did you seek counseling services, if at all?

Please provide suggestions on how we can improve the peer support program to better serve officers.