

The psychological impact of COVID-19 on police officers

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Abstract

Police officers play an important role in protecting the community. During the COVID-19 pandemic, their role has posed a serious threat to their physical and psychological health and well-being. This study was designed to assess the prevalence of anxiety, depression, PTSD and compassion fatigue in police officers and to identify the factors that predict COVID-19-related physical and mental well-being. As part of a regular health surveillance programme, 3863 police officers recorded their physical exposure to COVID-19 and the extent to which COVID-19 had affected their psychological well-being. The study provides suggestions on developing evidence-based well-being interventions for policing.

Keywords

Police, COVID-19, well-being, support

Introduction

The COVID-19 has had a dramatic effect on the lives of people throughout the world. The size and duration of the pandemic have placed a strain on the mental health of front-line workers where there is a high exposure to the disease together and a requirement to work in close contact with others ([Office of National Statistics, 2021](#)). Some occupational groups have been identified as facing a higher level of risk of developing mental health problems which include those working in intensive care ([Greenberg et al., 2021](#)), mental health workers ([Rapisarda et al., 2020](#)), health care workers ([DeKock et al., 2021](#)) and those working in front-line policing ([Stogner et al., 2020](#)).

For the police, dealing with major events involving large sections of the community is part of their normal role. In the COVID-19 pandemic, front-line police officers have

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continued to respond by protecting the public from harm, dealing with civil unrest and investigating crime as well as dealing with the additional challenges of responding to the emerging COVID-19 demands. The situation for police officers has been made more complex by the rapidly changing governmental directives designed to reduce the spread of the disease. Neighbourhood and response police officers working at street level carry the responsibility of achieving public compliance to social distancing, mask wearing and restricted social gatherings through their powers of persuasion rather than the threat of enforcement. Despite the provision of personal protective equipment (PPE), police officers are frequently required to be in close proximity to other people, for example, when making an arrest or dealing with a confused or lost member of the public suffering from a mental health condition. The way the policing role is carried out in the UK means there is a constant risk of infection whilst maintaining public order, enforcing local lockdowns, dispersing illegal social gatherings or assisting in transporting the deceased to mortuaries. At the same time, the day-to-day work of police officers during the pandemic has shifted with a reduction in cases of theft and burglary and increasing numbers of domestic violence and child abuse cases (ONS 2020; Mohler et al., 2020). Unlike most other major incidents, the COVID-19 pandemic has remained a major public health emergency for an extended period by placing additional strains on police officers and other policing resources.

Trauma signs, symptoms and resilience in policing

Policing is a stressful profession with most police officers viewing exposure to trauma as an accepted occupational hazard. A recent systematic review of mental health problems in police personnel (Syed et al., 2020) showed the repeated exposure to trauma experienced by police personnel to be associated with an increased risk of mental health problems. These problems included 14.6% depression, 14.2% PTSD, 25% at a high risk of drinking above the recommended levels of alcohol and 9.6% experiencing generalised anxiety. A study of police officers in China engaged in responding to COVID-19 found 12% had moderate or high depression and 9% had moderate-to-high anxiety (Yuan et al., 2020).

There is evidence of increased levels of compassion fatigue, burnout and secondary trauma in police officers, particularly those working in public protection (Foley et al., 2021; Tehrani, 2016), and some evidence that female officers may be more susceptible to developing trauma-related symptoms (MacEachern et al., 2018). The number of years a police officer has been in a role and neuroticism has also been shown to be related to increased levels of trauma symptoms in some roles (Tehrani, 2018). Mental health stigma created by police officers believing that seeking help or talking to others about their mental health difficulties would be viewed negatively and detrimental to their careers has been identified (Marshall et al., 2021; Stuart, 2017) with the suggestion that stigma reduces the likelihood of officers seeking support and an under-reporting of psychological symptoms. Mental health stigma can make police officers vulnerable to developing more serious mental health problems due to a delay in seeking help.

Despite their high exposure to distressing events, it has been established that police officers and staff are more resilient in the face of adversity and trauma than members of the general

public (Regehr et al., 2019). Regehr et al. found rates of PTSD among police officers were consistently lower than those found in other occupations when dealing with the same disaster. However, policing roles, particularly for officers involved in front-line responding, expose them to a high frequency of traumatic exposures, rather than responding to a single traumatic incident. Multiple exposures to trauma can make officers and staff more vulnerable to the development of complex traumatic stress (Miller et al., 2021; Steel et al., 2021).

To maintain a healthy and resourceful police force, it is important that those involved in the recruitment of police officers and staff pay attention to the traits, characteristics, structures, management support and training which have been shown to promote personal and organisational resilience. Resilience to the trauma has been shown to be associated with active coping styles (Violanti et al., 2018), a strong sense of coherence and challenge, (Almedom, 2005; Lockley et al., 2021), supportive leadership (Nguyen et al., 2016), social support (Skeffington et al., 2017), a stable personality (Tehrani, 2016) and a lack of mental health related stigma (Gray et al., 2020).

Identifying the factors to increase the resilience of police personnel in the face of COVID-19 is important not only for the officers but also for the communities they serve.

Anything that can be learnt from the current pandemic which can enhance well-being awareness and strategies may be of benefit in building resilience for dealing with other traumatic events.

The aim of this study is to use data gathered from police officers and staff as part of a psychological surveillance programme (Hesketh and Tehrani, 2019), in order to identify the physical and psychological impact of COVID-19 and to examine the factors related to physical and psychological resilience and well-being within the policing community.

Method

The data for the study were gathered from an annual psychological surveillance programme offered to all police forces in England and Wales by the National Police Wellbeing Service (NPWS). The data were collected using a secure online psychological screening tool between January and April 2021. The psychological screening programme had been introduced under Health and Safety Regulations for roles involving activities known to pose a risk to mental health and well-being (HSE, 2021). The participants were from policing roles identified by the NPWS as being a hazardous to mental health. The screened officers had been provided with information on the programme and were aware that the results would be shared with Occupational Health (OH). Only information on fitness to undertake their role would be provided to their supervisor. There was a high completion rate with 80% of police officers invited for screening completing the online questionnaires.

Screened population

The surveillance group was made up of 3863 police officers of whom 38% were female, 60% were male and 2% recorded their gender as other. The mean age was 42 and mean number of years in role was 5.7 years. The officers had consented to the data to be used to provide management information to monitor and audit the effectiveness of the service and

to identify opportunities to improve the well-being of the officers and staff. Following the screening, officers or staff members found to have clinical symptoms to have exceeded the cutoff levels for a referral to an OH professional or to a psychologist were provided with a follow-up assessment and where appropriate a referral for general counselling or trauma therapy (Tehrani, 2019) *bv*.

Screening tools

The screening questionnaires in the online screening were selected and had been validated within an occupational setting (Tehrani and Hesketh, 2019). The questionnaires included four self-assessment measures for anxiety, depression, primary and secondary trauma. The questionnaires were the Goldberg Anxiety/Depression Scale (Goldberg et al., 1988) with the anxiety and depression scores ranged from 0 to 9. The Professional Quality of Life (Stamm, 2009) which measured compassion satisfaction, burnout and compassion fatigue. Higher scores on 'burnout' and 'compassion fatigue' and lower scores on 'compassion satisfaction' indicate negative outcomes. The last clinical questionnaire was the Impact of Events-Extended (Tehrani et al., 2002) which measured the symptoms of avoidance, arousal and re-experience where total scores of 50 or more were indicative of PTSD.

Personal resilience was measured using the Sense of Coherence Scale (Antonovsky, 1987) with three subscales: meaningfulness, comprehensibility and manageability. Lower scores indicating lower personal resilience. A lifestyle questionnaire based on National Health Service guidelines examined eight areas of life including: eating, caffeine and alcohol consumption, exercise, hobbies, sleep, socialising and smoking which were scored on a three point scale good, average or poor. The Emotional Literacy Questionnaire (ELQ) (Steiner and Perry, 1999) was used to assess emotional resilience and somatic sensitivity to traumatic events. The ELQ consisted of seven subscales with scores ranging from 0 to 6. The Brief Cope Questionnaire (Carver, 1997) measures active and passive coping styles. Adverse childhood experiences (Felitti et al., 1998) included emotional, physical, sexual and domestic abuse exposure. Questions regarding other personal factors such as age, exposure to recent traumatic events, other traumas and addictive behaviours together with questions on manager support, mental health stigma, workability and health beliefs (Ilmarinen and Tuomi 2004) were included.

Three questions gathered information on the impact of COVID-19. The questions were as follows: 'If you caught COVID-19 what were the affects?' scored on a five-point scale ranging from 0 = none to 5 = treated in intensive care. The second question asked was 'Overall has your mental health been affected by Covid-19?' The scoring for this question was on a four-point scale ranging from 0 = not at all to 4 = very badly. The third question asked was if any family member or close friend had been in hospital, intensive care or died due to COVID-19.

The data were collated and statistical analyses were performed using SPSS statistical software version 27.

Results

The overall screening results showed 81.6% of those screened were not showing any significant signs of mental health problems, 13.7% had marginal scores and were seen by an OH practitioner and 4.6% had clinical level mental health symptoms and were referred for an assessment by a psychologist. We recognise that not all the readers will be fully conversant with statistics. The box below explains some statistical terms. We would recommend those wishing to understand more should read a simple book on research and quantitative statistics, for example, [Rowntree \(2018\)](#).

Meaning of statistical terms for non-academics

A correlation is a way in which the level of relationship between two variables (i.e. symptoms or outcomes) can be identified. The correlation is a measure of how likely two variables could co-occur by chance. In this study, there are correlations with probabilities of less than $p < 0.001$, which means the probability is less than 1: 1000 of this result occurring by chance, that is, very unlikely. The other figure to examine is the r-score. This r-score explains how much of the relationship is explained by given variable. The highest r-score achievable is 1.0 where all variables are explained. Taking the results from this study, you can see the correlations between perceived impact of COVID-19 on physical well-being and the variable anxiety is 0.044%, which is quite low, nevertheless, the result $p < 0.007$ is likely to be an accurate finding as there are less than seven chances in 1000 of this result occurring by chance.

In the results, you will also see a mention of collinearity. This is an important check that is undertaken when looking at several influencing variables at the same time. In this study, all the measures in the psychological screening questionnaires were included in a multiple regression to find out which were most influential in creating COVID-related distress. The potential problem with this approach is that two or more variables could be measuring the same thing, for example, if we look at primary and secondary trauma both symptoms include hyperarousal, re-experience and avoidance. To make sure there is minimal overlap (collinearity), a statistical test to identify the presence of double counting was undertaken. In this study, there was no significant overlap which means each of the factors in [Table 3](#) is independent of each other and important to consider when looking for ways of supporting officers and staff.

Resilience factors

The next stage of the analysis was to look at the effect of the surveillance tool variables on physical well-being. A stepwise multiple regression was used and found that the model explained 2% of the variance and was a significant predictor of physical well-being $F(6,3856) = 13.62, p \leq 0.001$. The relative contributions were as follows: days sick 0.004, $p < 0.001$; sleep 0.101, $p = 0.001$; alcohol consumption 0.065, $p = 0.007$; alcohol/drug used for coping 0.039, $p = 0.004$; comprehensibility 0.009, $p = 0.005$ and health beliefs $-0.043, p = 0.020$. Table 2 shows the proportion of the variance explained by the surveillance questionnaire. It includes a test of collinearity which indicates no serious overlapping between variables.

The effect of the surveillance items on COVID mental well-being was measured using the stepwise multivariate regression. Seventeen variables were shown to account for 62% of the variance, and the model was a significant predictor of COVID-related mental well-being $F(17,3845) p, 0.001$. Eleven of the variables were negative and six were positive. The relative contributions and probabilities were as follows: comprehensibility $-0.014, p < 0.001$; health beliefs $-0.072, p < 0.001$; involvement $-0.026 < 0.001$; age $-0.007, p < 0.001$; manageability $-0.009, p = 0.016$; ACE 0.018 $p < 0.001$; relaxation $-0.016 p < 0.001$; workability $-0.049, < 0.001$; dissociation $-0.037 p < 0.001$; mental disengagement 0.037, $p < 0.001$; mental health stigma 0.071, $p.002$; social support 0.008, $p = 0.008$; physical fitness $-0.008, p = 0.009$; time planning 0.010, $p = 0.009$; meaningfulness $-0.008, p = 0.011$; sympathy 0.025, $p = 0.008$ and behavioural disengagement $-0.020, p = 0.041$.

Table 3 provides the results of the stepwise regression and identifies the questionnaire items which have been shown to be significant predictors of COVID mental well-being. The collinearity VIF values are below 10 indicating there is no serious overlapping between variables.

A number of variables from the screening were excluded as they did not contribute to the variance, and these variables include the following: gender, manager support, mental fitness, assertiveness, problem solving, neuroticism, sensory awareness, empathy, interpersonal sensitivity, emotional resilience, active coping, venting, denial and humour.

Discussion

In this discussion, we will look at the results and offer some suggestions on how police forces might use this evidence to create activities and interventions to strengthen the resilience of their officers and staff. What was found and illustrated in Table 1 was the difference between catching COVID-19 and being emotionally affected by COVID-19. The results showed that catching COVID-19 was strongly related to anxiety and depression but not to PTSD or compassion fatigue. On the other hand, the effect of COVID-19 on mental well-being was significant and has a much more comprehensive mental health impact with elevated levels of anxiety, depression, PTSD and compassion fatigue. These results suggest that that the main effect of COVID-19 may not be caused by catching the disease but rather by the way the presence of the disease is experienced in

Table 2. Results from a stepwise regression analysis showing the contribution of six factors on the COVID-related physical well-being.

*Q	Variables	Unstandardised B	Coefficients std error	Standardized coefficients beta	t	Sig	Collinearity tolerance
—	(Constant)	0.069	0.108	—	0.642	0.542	—
PF	Days sick	0.004	0.001	0.096	5.926	<0.001	1.039
LS	Sleep	0.101	0.031	0.054	3.241	0.001	1.083
LS	Alcohol	0.065	0.024	0.044	2.692	0.007	1.059
Cope	Alcohol/drug coping	0.039	0.013	0.049	2.835	0.004	1.075
SOC	Comprehend	0.009	0.003	0.049	2.835	0.005	1.170
PF	Health beliefs	-0.043	0.018	-0.040	-2.315	0.021	1.185

*Questionnaires PF=personal factors, LS=lifestyle, Cope=Cope Questionnaire, SOC=sense of coherence.

day-to-day life. Police supervisors should be sensitive to the needs of members of their team who have caught COVID-19 or have close family members or friends who have been seriously affected. We did not look at the possibility of long COVID in our study, but this may be an important additional concern with physical and psychological implications. Supervisors and police employees should be referred to OH where long COVID is suspected.

Many people experience psychological distress caused by separation, loss of employment and isolation which may pose a greater mental health burden than physically catching COVID-19. The online surveillance tool adopted by the NPWS uses a range of psycho-social questionnaires and perhaps not surprisingly only picked up 2% of the variance related to the impact of catching and being treated for COVID-19 infections. Table 2 provides the variables related to catching COVID-19, and we found that those who caught COVID-19 and were more negatively affected took more time off work, had problems sleeping, drank more alcohol or used alcohol or drugs to deal with stress and an increased understanding of the risks posed by COVID-19. Positive health beliefs were predictive of higher levels of perceived physical well-being. These results suggest that there may be benefits in providing simple well-being advice to officers on sleep, alcohol and information on COVID-19.

The variables identified as predicting COVID-19 mental well-being from the surveillance tool questionnaires are being examined in three groups (a) sense of coherence, (b) individual personal factors and (c) questionnaires measuring emotional literacy, coping skills and cope. In each case, suggestions have been made on the activities that could be undertaken to enhance mental well-being.

Sense of coherence

From a psychological viewpoint, the results in Table 3 illustrated the importance of the Sense of Coherence (SOC) Questionnaire. The SOC's three factors of comprehensibility,

Table 3. Results from a stepwise regression analysis showing the contribution of seventeen factors on the COVID-related mental well-being.

Q*	Variables	Unstandardised B	Coefficients std error	Standardized coefficients	beta	t	Sig	Collinearity	VIF
—	(Constant)	2.641	—	—	—	30.793	<0.001	—	—
SOC	Comprehend	-0.014	0.086	-0.111	-0.111	-4.288	<0.001	3.29	3.29
PF	Health beliefs	-0.072	0.014	0.094	0.094	-5.005	<0.001	1.72	1.72
CS	Involvement	-0.026	0.004	-0.094	-0.094	-6.798	<0.001	1.46	1.46
PF	Age	-0.007	0.001	-0.094	-0.094	-6.207	<0.001	1.11	1.11
SOC	Manageability	-0.009	0.004	-0.006	-0.006	-2.409	0.016	3.70	3.70
ACE	ACE scores	0.018	0.006	0.058	0.058	3.324	<0.001	1.51	1.51
CS	Relaxation	-0.016	0.004	-0.073	-0.073	-4.093	<0.001	1.57	1.57
PF	Workability	-0.049	0.013	-0.068	-0.068	-3.662	<0.001	1.69	1.69
EL	Dissociation	-0.036	0.007	-0.121	-0.121	-4.830	<0.001	3.09	3.09
Cope	Mental disengagement	0.037	0.011	0.098	0.098	3.458	<0.001	3.90	3.90
PF	MH stigma	0.071	0.023	0.047	0.047	3.089	0.002	1.11	1.11
CS	Social support	0.008	0.003	0.049	0.049	2.639	0.008	1.72	1.72
CS	Physical fitness	-0.008	0.003	-0.049	-0.049	-2.606	0.009	1.72	1.72
CS	Time planning	0.010	0.004	0.045	0.045	2.618	0.009	1.42	1.42
SOC	Meaningful	-0.008	0.003	-0.054	-0.054	-2.535	0.011	2.25	2.25
EL	Sympathy	0.025	0.010	0.069	0.069	2.649	0.008	3.34	3.34
Cope	Behavioural disengagement	-0.020	0.010	-0.053	-0.053	-2.043	0.041	3.31	3.31

*Questionnaires: SOC=sense of coherence; PF= personal factor, CS=coping skill, ACE=adverse childhood experiences, EL= Emotional Literacy Questionnaire, Cope=Cope Questionnaire.

manageability and meaningfulness measure a generalised resistance resource (Almedom, 2005). A study of Swedish police officers (Dåderman and De Colli, 2014) suggested that the SOC embodies salutogenesis which is a source of well-being and highlights the need for team leaders to create a working environment with a deeper sense of purpose (meaningfulness), understanding of role and its relationship with other roles and functions (comprehensibility) and an ability to undertake work with adequate resources and knowledge (manageability).

The evidence from the SOC is compelling, the result that employees with a sense of purpose, an understanding what is expected of them and the skills and resources to carry out their role and tasks may appear unremarkable. However, some supervisors and managers fail to sit down with their teams to talk about the purpose of policing. Too often, performance will be measured on the completion of tasks, for example, the number of cars booked for speeding rather than on a belief of the importance of changing drivers' attitudes to speeding. It is easier to measure speeding tickets than assess a driver's attitudinal change.

Comprehensibility is the understanding officers and staff have in how their work fits into the larger picture. Being a small cog in a large organisation without any notion of the importance of their role undermines feelings of self-worth. For example, a neighbourhood officer may see their role as keeping in touch with the community, gathering information and intelligence which is fed into a larger pool of knowledge used to prevent crime and protect the vulnerable. This understanding makes the role meaningful and understandable. However, if officers and staff do not know what happens to their reports or how they have brought about a breakthrough may experience a lack of self-worth.

Finally, there is an issue of manageability in terms of the pressure or complexity of work. For some supervisors, pressure comes from above and is passed down the line. Rather than each supervisor and manager seeing themselves as responsible for ensuring that the pressure put on their team is reasonable in terms of volume of work and the skills to undertake the tasks. Supervisors and managers need to be assertive in determining what is a reasonable request and to be bold in challenging unreasonable requests with a capacity for identifying different and innovative solutions, training and resources which prevent the overburdening of officers and staff.

Suggestions: Using the SOC factors could be used to inform leadership development and training. This will be likely to include skills in innovative thinking and problem solving, advanced interpersonal and communication skills and an awareness of the evidence for a more consultative approach to management. This training would be beneficial to all areas of policing and particularly useful in roles where there is a high degree of stress and trauma.

Personal factors

Health beliefs and workability involve single questions which are based on the Finnish Occupational Health Workability Index (Illmarian & Tuomi 2004). The questions ask for an assessment of current workability/health compared with the lifetime best. These questions identify officers with a positive outlook in relationship to their work and health.

The concept of post-trauma growth is based on a positive attitude of mind which recognises the possibility of personal growth following violence and trauma (Ai and Park, 2005; Tedeschi and Calhoun, 2004). Health beliefs and workability are strongly associated with positive psychology. Supervisors and managers have a major role to play in increasing positive thinking in their teams, partly by demonstrating positive health beliefs and workability in their own lives. One of the main problems in negative, disgruntled and disengaged teams is their tendency to look backwards. Negative teams and employees focus on the problems from the past and create visions of new problems, blocks and objections to anything in the future particularly when this requires change. Negative backwards thinking saps the energy and enthusiasm and creates feelings of distress. For a supervisor or manager wanting to bring about a change to a more positive attitude, there is a need to look into the future by asking questions which elicit positive future based responses such as ‘What could you do to make the job better?’ ‘Which parts of your job do you enjoy and would like to do more often?’

Suggestion: Adopt a positive approach to well-being and engagement. This positive approach may unlock discretionary effort, increase commitment and improve well-being (Hesketh et al., 2017).

Increased age was shown to be related to higher levels of mental well-being in COVID-exposed officers.

Suggestion: Attend the NPWS’s Supervisor Well-being Assessment training (this can be booked via the Oscar Kilo site). This training gives supervisors and managers a toolbox of support to help them build a positive team.

Suggestion: There may be a benefit in using older officers as mentors as a way of sharing knowledge and increasing team resilience (Symes, 2018).

The questions on mental health stigma asked about the level of stigma within teams. Stigma is a strong feature of some police cultures (Stuart, 2017), in this study it was found to be related to poorer mental well-being.

Suggestion: Deal with stigma through education and training. Introduce proactive programmes to increase engagement with well-being programmes to increase workplace productivity (Gray et al., 2020).

Adverse childhood experience scores are becoming more widely used as an indicator of vulnerability; however, it is important to have effective trauma focussed therapy to help officers understand and resolve their early life event.

Suggestion: Introduce easy access to trauma therapy programmes (Tehrani, 2019).

emotional literacy, cope and coping skills

The ability to distance oneself from a trauma can be protective. The study showed dissociation and behavioural distraction were protective factors, whilst emotional detachment or emotional avoidance was not helpful. Practical coping skills such as social support, time planning, physical fitness, relaxation and getting involved were related to higher mental well-being. Supervisors and managers having a role in ensuring officers have a full range of resilience and coping skills. It is also important that the management information provided by the national psychological screening and surveillance

programmes in place for specialist teams is studied. Where there is a need for high levels of a specific coping skill, lifestyle or resilience capacity, this is understood and used in recruitment, training and development programmes. Supervisors and managers should look at their teams and promote the building of skills and competence in emotional literacy, coping and other resilience skills as a means of increasing resilience.

Suggestion: Training and development teams in policing should look at the management information provided from the screening and surveillance programmes to enhance the skills and capacity of officers and staff.

Suggestion: OH and training departments to provide training and seminars for supervisors, officers and staff in a range of emotional intelligence, resilience and coping skills (Papazoglou and Andersen, 2014).

Limitations to this study

This study is based on police officers and staff, and the results would not necessarily apply to other occupations. As the surveillance questionnaires were designed to assess psychological well-being, the results for people catching COVID-19 are likely to miss other health-related factors which may be important measures of physical well-being. The study was cross-sectional design which limits its ability to establish cause and effect.

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