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Police employees working from home during COVID-19 lockdown: Those with higher score on extraversion miss their colleagues more and are more likely to socialize with colleagues outside work

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ABSTRACT

There is a general opinion that extraverted people suffer more than introverted people in home-office arrangement and the social distancing regulation imposed by the government during the Corona Virus Disease 2019 pandemic (COVID-19). However, scarce research exists concerning how extraversion is associated with satisfaction with home-office arrangement, to what extent individuals miss their colleagues, level of stress, and whether they meet colleagues outside work during lockdown.

An online survey was distributed in six police districts in Norway during late May and beginning of June, right before the most stringent measures for constraining risk of COVID-infection was lifted. 1133 out of 1472 reported that their work-situation was home-office, or combined home-office and physical attendance at work. Contrary to what expected, extraversion was not related to satisfaction with home-office arrangement when controlling for other relevant variables (i.e. stress, home-office only, living alone, age, gender and civilian employment). As hypothesized, those with a higher score on extraversion missed their colleagues more than those with low scores. There was a marginal, although significant, negative association between extraversion and stress, and a significant positive relationship between stress and the extent the respondents missed their colleagues during lockdown, independent of extraversion. The results showed a dose-response relationship between extraversion and meeting colleagues outside the work during lockdown.

1. Introduction

Social isolation and loneliness are common consequences of the Corona Virus Disease 2019 pandemic (COVID-19) pandemic and represent a major threat to mental health and happiness (Banerjee & Rai, 2020). Personality can affect behavior in response to the COVID-19 (Aschwanden et al., 2020) and predicts compliance to the restrictions aimed at reducing spread of COVID-19 (Zajenkowski, Jonason, Leniarska, & Kozakiewicz, 2020). The sociability component is the very core of extraversion (Smillie, Kern, & Uljarevic, 2019), and during the COVID-19 pandemic, several have been theorizing that extraverts experience more negative consequences compared to introverts, especially during stringent restriction regarding social distancing (Wijngaards, Sisouw de Zilwa, & Burger, 2020). Extraverts engage in social activities to a larger degree than introverts do (Lucas, Le, & Dyrenforth, 2008), and are therefore more prone to be affected by the demand for social distancing.

Personality traits are activated in certain work situations, and job performance is a product of complex interactions between the individual’s personality and the features of the organization and work situation (Tett & Burnett, 2003). In general, extraversion is associated with lower work-stress and higher job satisfaction (Udayar, Urbanaviciute, Massoudi, & Rossier, 2020). However, working from home and thus having limited contact with colleagues represents a situation relevant for the trait extraversion, and hence, one would expect that extraverted people would try to compensate for the reduced social contact with colleagues during COVID-19. Further, a recent study suggest that boredom and sadness are more prominent stress-factors than anxiety and fear during COVID-19 (Droit-Volet et al., 2020), suggesting that extraversion plays a crucial role in understanding the consequences of preventive COVID-19 measures on health and well-being, both in general and in the workplace.

Countries have been differently affected by the pandemic. However, even in Norway, with COVID-19 related deaths and infections considerable lower compared to other countries in western Europe and USA,
the government restrictions were the strongest regulations implemented since World War II, including closing of schools, restaurants, sport activities, social distancing and avoiding public transport (Christensen & Lagreid, 2020). An important means of avoiding the spread of the virus, was social distancing, and the use of home office, for those eligible or at risk for serious complications if infected (NIPH, 2020).

Police and similar occupations are more affected by health emergencies like the COVID-19 pandemic compared to other occupations (Laufs & Waseem, 2020; Stogner, Miller, & McLean, 2020), and risk of getting infected is one of the most prominent impact of COVID-19 on law enforcement personnel (Jennings & Perez, 2020). Still, a cross-national study identify that police officers tend to tolerate the stress during lockdown well (Frenkel et al., 2020). Police officers score higher on extraversion than other emergency personnel (Salters-Pedneault, Rued, & Orr, 2010), and although support from colleagues is an important resource regardless of profession and type of work (Van der Doef & Maaes, 1999), employees in the police profession tend to bond more and stronger than employees in other occupations (Johnson, 2012). Together, this suggest that contact with colleagues is more important for police employees than for those in other professions. Regarding social distancing, which is a crucial behavior for limiting the spread of the virus, demographic factors are relatively poor predictors of compliance to social distancing during COVID-19 (Pedersen & Favero, 2020), advocating the search for other predictors of health behavior. Individuals with high scores on extraversion seem to adapt poorly to the COVID-19 as they are less engaged in social distancing as a containment measure, than those with low scores on extraversion (De Francisco Carvalho, Pianowski, & Gonçalves, 2020), possibly making this trait a relevant predictor for social distancing.

In general, higher scores on extraversion is associated with good mental health (Lamers, Westerhof, Kovacs, & Bohlmeijer, 2012). Extraversion is associated with lower odds of social isolation (Whaites, Shensa, Sidani, Colditz, & Primack, 2018), more successful coping (Morales-Vives, Dueñas, Vigil-Colet, & Camarero-Figueroa, 2020) and more active seeking of socioemotional support during COVID-19 (Volk, Brazil, Franklin-Luther, Dane, & Vaillancourt, 2021). On the other hand, another study of Canadian adults showed that both higher neuroticism and extraversion were associated with elevated levels of stress during the pandemic (Liu, Lithopoulos, Zhang, Garcia-Barrera, & Rhodes, 2021).

Although lockdown and social distancing has been seen as the introvert’s paradise, the evidence suggest that extraversion is negatively associated with detrimental mental health impact of Covid-19 (Wei, 2020). Extraversion is related to active coping, seeking social support, and the trait is negatively associated with avoidance (Amirkhan, Risher, & Swickert, 1995). During the COVID-19 lockdown, the coping repertoire would be limited, especially for those more extraverted, something that may have a negative effect on their everyday work life. Results from a recent meta-analysis support a robust, negative association between loneliness and extraversion, where the association is explained by the role of extraversion in contact-seeking (Buecker, Maes, Denissen, & Luhrmann, 2020). Further, although scarce, there are some evidence that those more extraverted suffer more from the restriction posed upon them due to COVID-19 than introverts (Wijngaards et al., 2020).

As the expected negative association between loneliness and extraversion was not found in a study investigating this during the COVID-19 crisis (Coebergh, Makowski, Troche, & Schlegel, 2020), it is legitimate to expect that extraversion is relevant for social behavior during the COVID-19 pandemic. This might be especially true for those who work from home and thus have reduced contact with colleagues. However, some studies suggest that extraversion is less effective in predicting daily socializing when more objective measures are applied (Danvers, Sbarra, & Mehl, 2020), arguing for an investigation of the relationship between extraversion and social behavior measures. As social support from colleagues is the main coping strategy for police officers (Laufs & Waseem, 2020), working from home could represent a source of stress for this occupation. Based on the literature presented here, we outline the following hypothesis:

H1. Employees with higher score on extraversion are less satisfied with working from home compared to those with lower scores.

H2. Higher score on extraversion is associated with higher level of stress when working from home.

H3. Those with high scores on extraversion miss their colleagues to a greater extent than those with low extraversion scores.

H4. Extraversion will be positively associated with socializing with colleagues outside work.

2. Method

2.1. Sample and procedure

An online questionnaire was distributed through e-mail to all employees in six police districts in Norway, during 26th of May until 2nd of June, just before or right after the restrictions concerning social contact and physical attendance at work were lifted. A total of 1472 responded to the questionnaire, and out of those, 439 reported that their most typical work situation was physical attendance at work, while the majority, 760 combined physical attendance and home office, and 373 worked predominantly from home. Age was operationalized by age-groups to protect anonymity; 18–29 (13%), 30–39 (29%), 40–49 (27%), 50–59 (26%) and 60 and above (5%). Median for age was 40–49 (mode = 30–39). Gender distribution were 921 women (59%) and 645 men (41%). In this current study, given the aim and objectives, only those reporting to be working from home or combining home office with physical attendance, were included in the analysis (n = 1131). In this part of the sample, the gender distribution was 708 women (63%), and both median and mode for age was 40–49. 567 of the participants were police employed (i.e. police academy education), 564 were civilian employed, and 140 (13%) reported living alone.

2.2. Instruments and measures

2.2.1. Extraversion

Extraversion was operationalized using the Norwegian version of Big Five Inventory based on the Big Five model of personality (John & Srivastava, 1999). BFI-20 consists of 20 items, of which each of the five personality domains are measured with four items each on a Likert scale from one to seven; 1 (the item does not describe the respondent at all) to 7 (the item describes the respondent very well). The items included are talkative, tends to be quiet, shy, outgoing and social. In the translation of the Norwegian version of the instrument, emphasis was on capturing the meaning before exact verbatim translation, and the Norwegian version has presented good psychometric properties (Engvik & Clausen, 2011). Due to strict limitations concerning the participants time use on the questionnaire, only the items measuring extraversion were included. Internal consistency ($\alpha$) for the extraversion scale was 0.85.

2.2.2. Stress

Stress was operationalized using a single item, with the wording as follows: “Stress means a situation in which a person feels tense, restless, nervous or anxious or is unable to sleep at night because his/her mind is troubled all the time. Do you feel this kind of stress these days?” The response is recorded on a 5-point Likert scale varying from 1 “not at all” to 5 “very much”. This operationalization of stress has found to be a valid measure of stress in survey research, corresponding to other measures of mental exhaustion (Elph, Leppänen, & Jahkola, 2003), and other validated measures of perceived stress (Fredriksson-Larsen, Brink, Granqvist, Jonsdottir, & Aslen, 2015).

Contact with colleagues outside work was operationalized with yes/no
alternatives to the statement: “During COVID-19, have you socialized with colleagues outside work?”, with the elaboration “here we refer to exercise, hiking, social events, i.e. private meetings”. **Insufficient collegial contact.** To assess to what degree the participants missed having contact with colleagues during Lockdown, we used the statement “During COVID-19, I have missed my colleagues”, reported on a 5-point Likert-scale ranging from 1 “strongly disagree” to 5 “strongly agree”.

2.2.3. Control variables

Age group, gender (male = 1, female = 2), work-situation (whether their primary work-arrangement was combined working from home and physical attendance at work or working from home) and living alone were included as control variables.

2.2.4. Analysis

Multivariate analyses were performed in R version 3.6.3. For continuous variables (i.e. stress, general satisfaction with home-office arrangement and degree of missing colleagues), we used multiple regression, and for dichotomous outcome (meeting colleagues outside work) we used logistic regression. In all analysis, we included extraversion, age and gender in model 1, and work specific variables in Model 2. Since the sample was large enough for the central limit theorem to normally distribute, it was not necessary to check for normality of the residuals (Pek, Wong, & Wong, 2018). We tested the assumptions of homoskedasticity by running Breusch and Pagan tests (Breusch & Pagan, 1979), and in those cases where the tests showed heteroskedasticity we used robust standard errors. Multicollinearity was tested by calculating the variance inflation factor (VIF), and all models had predictors with VIF close to 1 which indicated that multicollinearity was not an issue. When referring to the magnitude of differences or strength of associations, we so according to Cohen’s (1992) guidelines on effect sizes, where values of r equal 0.10, 0.30 and 0.50 represent a small, medium and large effect size.

2.3. Ethics and approval

The participants were informed of the purpose of the study and gave consent for their response being used in this research project. The project is approved by the Norwegian Centre for Research Data.

3. Results

Table 1 shows descriptive statistics and correlations for all variables included in the present study. The police employed had a marginally higher mean score on extraversion (20.45, SD 4.49) compared to the civilian employed (19.86, SD 4.86), t(1109) = 2.12, p = 0.03, d = 0.13. There were no significant differences between these two groups in level of reported stress. Extraversion had positive associations to both missing colleagues and meeting colleagues during the COVID-19 pandemic. 45% reported no stress at all, and 30% little stress, whereas less than 1% reported very much stress. Stress was positively associated with missing colleagues, and negatively associated with satisfaction with working from home. No association was observed between extraversion and general satisfaction with home-office arrangement. Higher score on extraversion were associated with missing colleagues to a greater extent, and with meeting colleagues outside work.

Table 2 shows the results from the multiple regression analysis on variables predicting stress during the COVID-19 pandemic. Model 1, including gender, age and extraversion explained 4% of the variance in stress. Age had a negative association to stress. Model 2, adding work situation, living alone, being a civilian, and missing colleagues, explained 6% of the variance in stress. Missing colleagues and being a civilian had positive associations to stress. Age and extraversion had weak negative associations to stress. No significant association was found between stress and gender, work situation, or living alone.

Table 3 shows the results from the multiple regression analysis on variables predicting the extent to which workers missed their colleagues during the COVID-19 pandemic. Model 1, including gender, age and extraversion explained 5% of the variance in missing colleagues. Age had a negative association to missing colleagues. Model 2, adding work situation, living alone, being a civilian, and stress, explained 7% of the variance of the extent to which the participants missed their colleagues. Extraversion and stress were positively associated to missing colleagues, whereas work situation, being a civilian, and living alone were not significant predictors in the adjusted model.

Table 4 show the result from the logistic regression analysis on variables predicting meeting colleagues during the COVID-19 pandemic

Table 1

|                | 1.        | 2.        | 3.        | 4.        | 5.        | 6.        | 7.        | 8.        | 9.        | 10.       |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1. Extraversion| 20.45     | 1.01      | 3.65      | 3.99      | 1.41      | 2.80      | 1.14      | 0.46      | 2.82      | 1.30      |
| 2. Stress      | 4.65      | 1.01      | 1.09      | 1.01      | 0.49      | 1.11      | 0.35      | 0.50      | 0.95      | 0.46      |
| 3. Miss colleague | 0.20***  | 0.01      | 0.02      | 0.02      | 0.18***   | 0.08*     | 0.08***   | 0.02      | 0.19***   | 0.14***   |
| 4. Satisfaction home-office | 0.04      | 0.01      | 0.02      | 0.02      | 0.18***   | 0.08*     | 0.08***   | 0.02      | 0.19***   | 0.14***   |
| 5. Gender | 0.06     | 0.06     | 0.01     | 0.01     | 0.02     | 0.18***  | 0.08*     | 0.08***  | 0.02     | 0.19***   |
| 6. Age | 0.06     | 0.17     | 0.12     | 0.17     | 0.08***   | 0.08*     | 0.08***   | 0.02     | 0.19***   | 0.14***   |
| 7. Live alone | 0.06     | 0.17     | 0.12     | 0.17     | 0.08***   | 0.08*     | 0.08***   | 0.02     | 0.19***   | 0.14***   |
| 8. Civilian | 0.06     | 0.17     | 0.12     | 0.17     | 0.08***   | 0.08*     | 0.08***   | 0.02     | 0.19***   | 0.14***   |
| 9. Work situation | 0.06     | 0.17     | 0.12     | 0.17     | 0.08***   | 0.08*     | 0.08***   | 0.02     | 0.19***   | 0.14***   |
| 10. Met colleague | 0.06     | 0.17     | 0.12     | 0.17     | 0.08***   | 0.08*     | 0.08***   | 0.02     | 0.19***   | 0.14***   |

Note. *p < 0.5; **p < 0.01; ***p < 0.001.

Table 2

|                | Model 1 | β     | Model 2 | β     |
|----------------|----------------|-------|----------------|-------|
| Gender | 0.06 (–0.06, 0.17) | 0.03  | 0.13 (–0.002, 0.25) | 0.06* |
| Age | –0.17 (–0.22, –0.12) | –0.19*** | –0.19 (–0.24, –0.20*** |
| Extraversion | –0.01 (–0.02, 0.004) | –0.04  | –0.01 (–0.02, 0.001) | –0.06  |
| Work situation | –0.04 (–0.17, 0.08) | –0.04 (–0.21, 0.13) | –0.01 |
| Live alone | –0.04 (–0.21, 0.13) | –0.04 (–0.21, 0.13) |
| Civilian | 0.19 (0.06, 0.33) | 0.19** | 0.12 (0.06, 0.18) | 0.12*** |
| Missed colleagues | 0.01  | 0.03  | 0.02  | 0.08*** |
| Model | R² = 0.04, F(3, 1074) = 9.80*** | R² = 0.06, F(7, 1070) = 14.45*** |

Note. *p < 0.5; **p < 0.01; ***p < 0.001. Models have robust standard errors to account for heteroskedasticity.
4. Discussion

In this study, the aim was to explore the role of extraversion in an occupation-specific work context during COVID-19 restriction. As the review of the literature suggest both that extraversion is associated with effective coping in general (Amirkhan et al., 1995; Lamers et al., 2012), coping during the pandemic (Morales-Vives et al., 2020; Volk et al., 2021), and complying with regulations regarding social distancing (De Francisco Carvalho et al., 2020), several hypotheses were outlined according to these previous results. In addition, the general anecdotal conception of the miserable extravert working from home (Wei, 2020) were scientifically addressed in this study, as the evidence that extraverted individuals suffer more than introverted individuals under COVID-19 is limited (Wijngaards et al., 2020). Contrary to our expectation, no significant association was observed between extraversion and general satisfaction with home-office arrangement. Although both personality and demographic factors influence coping under the pandemic (Volk et al., 2021), satisfaction with home-office arrangement are probably more related to factors, like the nature of their work, home-office facilities, technical aspect, time saved on traveling to work, and work-family conflict due to closed schools and child-care facilities than personality. Further investigation of the role of personality and satisfaction with home-office is warranted.

The literature is rather consistent regarding the positive association between extraversion and mental health and coping (Amirkhan et al., 1995; Lamers et al., 2012; Morales-Vives et al., 2020; Volk et al., 2021). In our study, the positive association between extraversion and stress was weak, although significant in the adjusted model. Even though studies have shown the preventive measures related to the COVID-19 pandemic represent a threat to mental health (Banerjee & Rai, 2020), other studies show that boredom is one of the most prominent stress factors during COVID-19, and this might explain why we failed to observe a substantial association between extraversion and stress. In this study, missing colleagues during lockdown was a significant predictor of stress, independent of work– and living arrangement and extraversion. As hypothesized, police employees with higher scores on extraversion missed their colleagues more than employees with a lower score, consistent with the theory end empirical background (Ahern & Semkovska, 2017; Smillie et al., 2019). In the adjusted model, extraversion was a significant predictor of missing colleagues, together with stress. Although the cross-sectional nature of this study limits causal inferences, the result indicate that reduced collegial contact is a source of stress, regardless of personality. This resonates well with the literature on the importance of collegial support in the police profession (Johnson, 2012) and in general (Van der Doef & Maes, 1999).

In addition to scientifically test the notion of the introverts’ advantage during times of home-office and social distancing, we wanted to explore the role of extraversion regarding seeking social contact with colleagues outside the workplace during lockdown. We wanted to explore this because substantial evidence suggest that extraversion would be relevant for this behavior, both in general (Amirkhan et al., 1995; Buecker et al., 2020) and during COVID-19 (Wijngaards et al., 2020). However, extraversion has failed to effectively predict socializing (Danvers et al., 2020). Further, a systematic review of the policing under the pandemic, points out that officers are at risk of acute stress, and that social support is the most important preventive resource (Laufs & Waseem, 2020). Given this, and the importance of collegial bond among police officers, one could suggest that the role of personality traits was marginal compared to work-situation and stress. The results from the logistic regression showed that an increase in extraversion was associated with higher odds of having met colleagues, even when controlling for living alone, being a civilian employee, or work-situation (i.e. working partially or exclusively from home). This dose-response relationship between extraversion and meeting colleagues during COVID-19 lockdown resonate well with the literature (e.g. Smillie et al., 2019). Although living alone is a stronger predictor, the operationalization of extraversion as continuous variable, should be taken into this consideration. Although some argue that demographic variables are poor predictors of social distancing (Pedersen & Favero, 2020), we observed in this study that living alone was a strong predictor of meeting colleagues outside the workplace, even when controlling for other relevant factors. It should be noted that this study does not measure violations of the government’s regulations concerning social distancing. However, although meeting colleagues outside work does not necessarily represent a violation of the recommendation regarding social restrictions, the results indirectly support findings of the role extraversion as a predictor of engagement in social distancing (De Francisco Carvalho et al., 2020).

4.1. Strength and limitations

The cross-sectional design pose restrictions on the conclusions that can be drawn from this study. The absence of a strong association between extraversion and stress, can be attributed to the COVID-19 pandemic, consistent with other findings (Gobler et al., 2020). Another possible explanation for these results can be restricted range, as police employees tend to be less prone to stress and score higher on extraversion than employees in other profession (Salters-Pedneault et al., 2020). Given this, and the importance of collegial bond among police officers, one could suggest that the role of personality traits was marginal compared to work-situation and stress. The results from the logistic regression showed that an increase in extraversion was associated with higher odds of having met colleagues, even when controlling for living alone, being a civilian employee, or work-situation (i.e. working partially or exclusively from home). This dose-response relationship between extraversion and meeting colleagues during COVID-19 lockdown resonate well with the literature (e.g. Smillie et al., 2019). Although living alone is a stronger predictor, the operationalization of extraversion as continuous variable, should be taken into this consideration. Although some argue that demographic variables are poor predictors of social distancing (Pedersen & Favero, 2020), we observed in this study that living alone was a strong predictor of meeting colleagues outside the workplace, even when controlling for other relevant factors. It should be noted that this study does not measure violations of the government’s regulations concerning social distancing. However, although meeting colleagues outside work does not necessarily represent a violation of the recommendation regarding social restrictions, the results indirectly support findings of the role extraversion as a predictor of engagement in social distancing (De Francisco Carvalho et al., 2020).

Table 3

Predicting the degree to which workers missed their colleagues. (N = 1078).

|                      | Model 1 |                      | Model 2 |                      |
|----------------------|---------|----------------------|---------|----------------------|
|                      | 95% CI  | \( \beta \)          | 95% CI  | \( \beta \)          |
| Gender               |         | –0.10 (–0.21, 0.02)  | –0.05 (–0.24, 0.02) |
| Age                  |         | –0.09 (–0.14, 0.02)  | –0.06 (–0.12, 0.02) |
| Extraversion         |         | 0.04 (0.03, 0.05)    | 0.20*** | 0.20***              |
| Work situation       |         | 0.01 (–0.12, 0.13)   | 0.004   |                      |
| Live alone           |         | 0.04 (–0.13, 0.22)   | 0.02    |                      |
| Civillian            |         | –0.02 (–0.15, 0.01)  | 0.11    |                      |
| Stress               |         | 0.12 (0.06, 0.17)    | 0.12*** |                      |
| Model                |         | \( R^2 = 0.05, F(3)  | \( R^2 = 0.07, F(7)  | \( 1074 = 9.55***  | \( 1070 = 10.68***  |

Note. \( p < 0.5; ** p < 0.1; *** p < 0.001. \) Models have robust standard errors to account for heteroskedasticity.

Table 4

Predicting whether participants met colleagues outside work. (N = 1069).

|                      | Model 1 |                      | Model 2 |                      |
|----------------------|---------|----------------------|---------|----------------------|
|                      | 95% CI  | \( OR \)              | 95% CI  | \( OR \)              |
| Gender               |         | 1.01 (0.72, 1.30)    | 0.86 (0.54, 1.17) |
| Age                  |         | 0.66*** (0.53, 0.80) | 0.73*** (0.58, 0.88) |
| Extraversion         |         | 1.07*** (1.04, 1.10) | 1.08*** (1.04, 1.12) |
| Work situation       |         | 0.89 (0.57, 1.21)    | 1.08*** (1.04, 1.25) |
| Live alone           |         | 2.54*** (2.15, 2.92) | 0.91 (0.59, 1.39)   |
| Civillian            |         | 0.51*** (0.19, 0.83) | 0.96 (0.81, 1.11)   |
| Stress               |         | –593.21              | –574    |                      |
| Log Likelihood       |         | 1194.43              | 1163.99 |                      |

Note. \( p < 0.5; ** p < 0.1; *** p < 0.001. \) AIC = Akaike information criterion; \( OR = \) Odds ratio. Models have robust standard errors to account for heteroskedasticity.

outside work (i.e., in private setting). Older individuals and civilians were less likely to have met colleagues, and those with a higher score on extraversion were more likely to have met colleagues outside the workplace. Those living alone were more than twice as likely to meet colleagues during the COVID-19 pandemic compared to individuals who did not live alone. Partially or primary home-office (work-situation) was not a significant predictor.
et al., 2010). The low prevalence of stress in this sample suggest that this measure of stress do not perform optimal for this occupational group, and the results concerning extraversion and stress should be interpreted with caution. Unfortunately, this current study does not include measures of social contact besides colleagues, and it would be relevant to include more comprehensive measures of social activities. Further, the use of non-standardized, single-item for measuring social contact, satisfaction with home-office arrangement and whether they miss colleagues, and liability due to common method-bias is a weakness in this current study. Another limitation with this study is that only extraversion, and not the other personality traits in the five factor model was included, as especially neuroticism is relevant for stress. Further research into the role of personality and coping under COVID-19 should apply longitudinal design including comprehensive measures of all the traits in the five-factor model, as well as measures of specific stress-responses, social contact and compliance with regulation concerning social distancing. The large, representative sample, and the use of validated measures of stress and extraversion, and the inclusion of several relevant control variables represent important strengths of this study.

5. Conclusion

The COVID-19 pandemic represents a unique situation, both for personal and work life. Although extraversion was not associated with general satisfaction with home-office arrangement and marginally related to stress, we observed that those higher in extraversion missed their colleagues to a larger extent than those low in extraversion. The notion of home-office and social isolation being the introvert’s paradise was not supported. Further, the extent to which the respondents reported missing colleagues was a significant predictor of stress, independent of extraversion in this sample of police employees. We also identified a dose-response relationship between extraversion and likelihood of having met colleagues outside work during lockdown, suggesting that personality traits can be relevant predictors for social distancing and compliance with governments recommendations during the pandemic.

CRediT author statement

Police employees working from home during COVID-19 lockdown: Those with higher scores on Extraversion miss their colleagues more and are more likely to socialize with colleagues outside work.

1. Eva Langvik, Project manager, designing the study and collected the data, original draft preparation, writing, analytic strategy, revision and editing.
2. Håvard Rudi Karlsen, performing analysis, responsible for analytic and results section, tables, writing and editing.
3. Ingvild Sakslev-Lehouilier, Writing, reviewing and editing.
4. Torhild Anita Srøngaard, involved in the study-design, data-collection, result-section, writing, reviewing and editing.

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