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Occupational Stress, Anxiety and Coping Strategies in Police Officers

Studies by social scientists that have investigated occupational stress have shown that police officers are exposed to stressful events (acute or chronic) more often than other workers, and this can result in impaired psychosocial well-being and physical health [1,2]. The reasons for this relate to the content (e.g. exposure to human suffering) and context (e.g. relationships with administrative authorities) of the job, the way stressful events are evaluated, the coping strategies adopted, and their perceived efficacy [3].

Not all of policing is negative, however. For example, Hart and colleagues [4] reinforce the fact that police officers are exposed to both positive and negative work-related experiences and Kop, Euwema, and Schaufeli [5] highlight the many positive aspects of the profession, including positive contact with the public, the perception of being helpful and useful to society, job security, bonuses, and good retirement conditions.

In this population, perceptions of stress have been investigated in relation to gender, role, and sector of intervention. Researchers investigating the relationship between stress and gender have found female officers to be exposed to more stressors, which may in part be explained by their attempts to gain acceptance and win the esteem of colleagues and superiors within what has historically been (and perhaps still is) a male-dominated profession.

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This has significant consequences. For example, a study by Brown, Fielding, and Grover (1999; see also Maguen et al., 2009) revealed that female officers suffer more from post-traumatic stress disorder than their male colleagues. The level of distress can increase when female police officers are required to deal with crimes that women find particularly disturbing, such as violence against children, child prostitution, sexual abuse, etc.

Moreover, studies have shown that women in the police force experience higher levels of occupational stress, though without revealing any significant gender-based differences at the psychological level (Gächter, Savage & Torgler, 2011). For example, He, Zhao, and Ren (2005) analyzed the effects of gender as a determinant of distress. Their results indicated that female police officers (regardless of ethnicity) experience higher stress levels than their male colleagues. Berg, Hem, Lau, Häseth, and Ekeberg (2005) obtained similar results in their study of a sample of Norwegian police officers: female police officers reported higher stress levels than their male colleagues, although the latter reported greater exposure to serious incidents.

Previous studies investigating the relationship between stress and role have often produced discordant findings. For example, Patterson (2003) reported that having a more senior role may be associated with educational qualifications, but also with a significant stress load, variegated use of problem-focused and emotion-focused coping strategies, and seeking out of more social support. Moreover, workers with more years of service (often in a higher position) reported lower stress levels than their colleagues with less experience (White,

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Lawrence, Biggerstaff, & Grubb, 1985), which would appear to be due to their having acquired more efficient coping strategies and greater ability to cope with traumatic events (resilience) over time. Other authors, including Storch and Panzarella (1996), and Slate and Johnson (2013), have suggested that the trauma experience is reduced by the possibility of achieving a better position within the organization.

In addition to this research, belonging to a particular sector, rather than having to undertake a variety of tasks, has been shown to affect perceptions of stress (Arnetz, Arble, Backman, Lynch, & Lublin, 2013; Pole et al, 2001). On this subject, Abdollahi (2002) reported that police officers required to deal with cases of violence (such as rape, abuse, domestic violence) and those patrolling the streets (e.g. those who direct traffic and are called upon to deal with road traffic accidents) are more vulnerable to stress than officers in other sectors (e.g. those involved in training new recruits, Acquadro Maran & Varetto, 2012).

Identifying mechanisms that make individuals less vulnerable to stressors is obviously important. Active and instrumental coping strategies (e.g. gaining family and social support) have been associated with good adaptation to traumatic stress (positive stress coping), while more passive or avoidant strategies (e.g. avoidance of friends and family members, excessive alcohol intake) are often considered as maladaptive, negative coping strategies (He, Zhao, & Archbold, 2002). In general, strategies involving disengagement from coping with the trauma increase the likelihood of experiencing ongoing distress and of developing a post-traumatic stress disorder (Hennig-Fast, et al., 2009).

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The aim of this research was to carry out a descriptive survey in a sample of police officers working in a large city in northern Italy. In Italy, work-related stress in this population was also recently investigated in relation to operational and organizational stressors (Garbarino, Magnavita, Chiorri, et al., 2012; Setti & Argentero, 2012) and, more generally, absenteeism (Magnavita & Garbarino, 2013) and personality traits (Garbarino, Chiorri, & Magnavita, 2013). To the best of our knowledge, the current study is the first study conducted in an Italian context to investigate the stressors as perceived by policemen and policewomen in relation to their organizational role and sector of operation.

The police force where the study took place works 7 days a week, 24 hours a day, and the number of workers varies according to requirements (e.g. increased numbers during rush hours and in case of adverse weather conditions, school entry and leaving times, during demonstrations and marches, at commercial establishment opening and closing times, etc.). The police operate on foot or use bicycles, cars or motorcycles. Their goals are timely intervention in emergencies and specialist interventions, such as traffic patrols, river patrols, police dog patrols, etc. The city has undergone some major changes in recent decades mainly due to migratory flows, and the police force has been charged with controlling and dealing with the problems that have arisen as a result of this forced cohabitation. As reported by investigations within this organization, the workload for police officers has increased and with it the stressors related to the diversification of tasks (Acquadro Maran & Varetto, 2012).

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We measured the level of stress experienced by the target population, the consequences in terms of anxiety, and the coping strategies adopted, using a questionnaire to capture a large amount of information. The data were then analyzed to capture average levels of stress, anxiety, and coping skills across individuals that vary by gender, role, and sector of intervention. We also examined how the measures we collected correlated with one another.

Method

Participants

The participants were 621 police officers working in a large city in northern Italy. The sample was primarily male (60.5%, $n = 359$), with an average age of 45.88 years ($SD = 8.69$, range 21-64). The average age of the female participants ($n = 234$) was 43.30 years ($SD = 6.80$, range 21-59). Over half the sample was married (56.1%), 10% were separated, and 17.8% cohabited/were engaged. The majority of respondents (59.9%) had one or more children, although 8.7% did not give an answer to this question. The police officers making up the sample were from different sectors and played different roles. The roles were:

- Executives (1 woman, 5 men): heads of the department which comprises several units providing a variety of services, responsible for continuously monitoring the activities undertaken (e.g. the urban safety department, which comprises, for example, the community policing and investigational units);

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- Unit Managers (4 women, 13 men): in charge of a unit (e.g. the investigational unit), define plans and programs and are responsible for implementing and monitoring the outcomes of these;
- Officers (12 women, 60 men): responsible for a service and the activities assigned to that service (e.g. emergency service) and the results attained;
- Non-commissioned Officers (58 women, 114 men): support the work of Officers, responsible for activities undertaken directly (e.g. obtaining a statement from the victim of a crime);
- Patrol Police Officers (188 women, 253 men): operate in the community, directly responsible for their actions and undertake a range of tasks depending on the needs of the community (e.g. service of documents, preventing and stopping fights) (Delvino, 2008).

The sectors were classified according to the type of work:

- Operational Service (159 women, 240 men): front-line police officers, responsible for enforcing the law, who intervene directly in cases of assault (domestic violence, violence between neighbors or between strangers, etc.), investigate crimes, ensure public safety (on the roads, in public places, etc.);
- Interior Department (104 women, 205 men): those with an organizational role (e.g. collection of fines, relations with the public, information and crime-prevention projects) and those responsible for personnel management.

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Just over 11 % (11.1%) of the questionnaires contained no indication of rank, 4.5% contained no indication of gender, while 10.6% contained no indication of sector.

Materials

The first page of the questionnaire included the presentation of the study, the declaration of anonymity, and the privacy statement. We used the Police Stress Questionnaire and the Distress Thermometer to measure occupational stress, and the State-Trait Anxiety Inventory (STAI Y-1 and STAI Y-2) to measure anxiety. The Brief Coping was used to measure coping strategies. The last page asked for socio-personal data.

The Police Stress Questionnaire consists of two scales (each made up of 20 items) designed to assess operational (PSQ-Op) and organizational (PSQ-Org) stress (McCreary & Thompson, 2006). The PSQ-Op measures stressors concerning, for instance, fatigue, the repetitiveness of the job, the lack of time to improve one's physical condition, health problems as a consequence of the type of job, and negative comments about work performed. The PSQ-Org measures stressors such as difficulties associated with red tape, lack of resources, staff shortages, the application of different rules to different people, and unequal distribution of responsibilities at work. As reported by the authors, psychometric analyses showed that both the scales have excellent internal consistency (Cronbach alpha's > .90) and corrected item-total correlations between .30 and .60. This questionnaire has been used by researchers in several studies, and in different languages (see Louw & Viviers, 2010). It was adapted for use with an

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Italian audience by translating it from British English and then ‘back translating’ it (White & Elander, 1992). The questionnaire was piloted using a sample of 32 Patrol Police Officers before using it in this study. This process did not result in any further revisions of the instrument.

The Distress Thermometer is a single-item measure that assesses subjective stress on a visual analog scale developed (Roth et al. 1998). The scale ranges from 0 (not distressed) to 10 (extremely distressed) and asks people to rate their level of distress during the previous week (Gil, Grassi, Travado, Tomamichel, & Gonzalez, 2005). As reported by Mitchell (2007), most studies use a cut-off score of 4 or 5 to indicate distress.

The STAI Y-1 and Y-2 scales rate state anxiety (a temporary interruption in the emotional continuum, characterized by a subjective feeling of tension and associated with the arousal of the autonomic nervous system) and trait anxiety (which denotes relatively stable individual differences in anxiety proneness) (Spielberger, 1983; Italian version, Pedrabissi & Santinello, 1989). Thus, the former rates the person’s current condition, whereas the latter refers to how an individual usually feels. Each of the two scales comprises 20 items. Total scores can range from 20 to 80, with 40 being the threshold value predictive of anxiety symptoms. A rating scale can also be used to define the level of severity: from 40 to 50 mild, 50 to 60 moderate, > 60 severe (Barisone, Lerda, Ansaldi, De Vincenzo, & Angelini, 2004).

The Brief Cope is a 28-item measure of people’s coping responses under stressful conditions (Carver, 1997; Italian version, Conti, 1999). It evaluates the

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subtlest differences in coping and the person's ability to balance general coping strategies (how would you react if) with those used in response to the current stressful situation (how did you react to specific stress situations). Scores range from 1 (I would not normally do this) to 4 (I would usually do this). The 28 items measure 14 coping strategies: self-distraction, active coping, denial, substance use, emotional support, instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, self-blame. The Brief Cope has been used extensively to study health care professionals as well as policemen and policewomen (Louw & Viviers, 2010). After completing the questionnaire, the participants were asked to provide some social and personal information (gender, age, marital status, household composition, address) and job details (role and sector of intervention).

Procedure

The questionnaires were self-administered and distributed between September and December, 2010. After obtaining the permission of the Chief of Police, an internal memo was sent to all the Executives informing them of the study. On the dates agreed upon with the officers-in-charge and heads of department, all the police officers were informed of the aims of the study and received their copies of the questionnaires. Additional copies were left for officers who were absent or not on duty that day. The participants were asked to complete the questionnaires and then place them in specific boxes that had been left at the various places of work, specially designed to guarantee privacy and anonymity. Two researchers were available for participants to contact by phone or e-mail if

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they required any information or support while answering the questionnaire. None of the participants utilized this opportunity. The questionnaires were collected 8 working days later. Quantitative data were processed using SPSS version 18.

Results

The internal consistency and psychometric characteristics of each scale utilized in the present study are presented in Table 1.

PSQ-Op and PSQ-Org

The overall scores obtained by our sample on the PSQ-Op corresponded to a non-excessive range of stress, while those on the PSQ-Org revealed higher stress levels (Table 1). Possible scores on each scale ranged from 1 (no stress) to 7 (very much stress), whereas the participants' answers ranged from 1 to 5 on both scales.

The comparison by gender, role, and sector enabled us to observe any differences pertaining to the level and type of stress. The PSQ-Op and PSQ-Org findings revealed that women in all Operational Service roles were more vulnerable to both organizational and operational stressors. In terms of role, male and female Patrol Police Officers were found to be those most exposed to operational stressors. Female Officers and male Patrol Police Officers were the most susceptible to organizational stressors. Generally speaking, our data revealed a higher incidence of organizational stressors than operational stressors.

Within the Interior Department, male and female Executives reported the highest levels of operational stressors. Males were more vulnerable to this type of stressor, with the exception of Unit Managers. Also in this case, males were more

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vulnerable to organizational stressors, with the exception of female Executives and Patrol Police Officers (of whom there were very few in both cases).

Distress Thermometer

The data indicated that the overall study population did not exceed the cut-off level. A more careful analysis (tables 2-3) revealed that female Unit managers, Non-commissioned Officers and Patrol Police Officers in the Operational Service did exceed the cut-off score, thus reporting a general state of distress. Male Non-commissioned Officers in the Interior Department and female Patrol Police Officers also exceeded the cut-off level.

STAI Y-1 and Y-2

The results for state and trait anxiety revealed that the overall mean for the sample reached the cut-off level for moderate anxiety (53.42 for state anxiety and 52.97 for trait anxiety). Male Police Patrol Officers in the Operational Service obtained the highest score among all groups (Tables 2) both in state and trait anxiety. In the Interior Department, female Officers achieved the highest scores of all (Table 3) in STAI-Y1 form, while female Non-commissioned Officers the highest score in STAI-Y2 form.

Brief Cope

Our findings showed that Active Coping, Planning, and Acceptance strategies were those used the most across genders, roles, and sectors (Tables 4-5). Maladaptive strategies, such as Self-blame, was used in Operational Service by Unit Managers male and female and in Interior Department by Executives and Unit Managers female more than their colleague in other roles.

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Correlations Between the Measures

Correlations were calculated to examine the relationship between PSQ-Op, PSQ-Org, the Distress Thermometer, STAI Y-1 and Y-2 scores, and coping strategies for each group of participants. In the Operational Service, male Officers' PSQ-Op scores were significantly related to their STAI Y-2 scores, $r = .73, p = .000$, while their Distress Thermometer scores were significantly related to Self-blame, $r = .72, p = .001$, and Negation coping strategies, $r = .78, p = .000$. For male Operational Unit Managers in the Operational Service, PSQ-Op scores were significantly related to PSQ-Org scores, $r = .95, p = .004$, and to STAI Y-2 scores, $r = .98, p = .001$. For female Non-commissioned Officers in the Operational Service, PSQ-Op scores were significantly related to PSQ-Org scores, $r = .71, p = .000$, their Distress Thermometer scores to their STAI Y-2 scores, $r = .72, p = .000$, and their STAI Y-1 scores to their STAI Y-2 scores, $r = .76, p = .000$. For female and male Patrol Police Officers in the Operational Service, there was a significant correlation between PSQ-Op and PSQ-Org scores ($r = .78, p = .000$ and $r = .73, p = .000$ for female and males, respectively).

In the Interior Ministry Department, male Executives' PSQ-Org scores were significantly correlated with PSQ-Op scores, $r = .99, p = .001$, and to Religion coping strategy, $r = .99, p = .009$. For male Officers in the Ministry, their PSQ-Op scores were related to their PSQ-Org scores, $r = .86, p = .000$, and Planning coping was correlated with Active Coping, $r = .74, p = .000$. The correlations between PSQ-Op and PSQ-Org scores, and between these specific coping strategies, were also significant for female Non-commissioned Officers in

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the Ministry ($r = .78, p = .000$ and $r = .76, p = .000$, respectively). In addition, for these female Non-commissioned Officers, a significant correlation was found between Active Coping and Venting, $r = .80, p = .000$. For male Non-commissioned Officers there was a significant correlation between PSQ-Op and PSQ-Org scores, $r = .79, p = .000$. The same correlation was significant for male and female Patrol Police Officers in the Ministry ($r = .77, p = .000$ and $r = .71, p = .000$, respectively).

Discussion

This is the first Italian study that concurrently considers gender, role, and sector of operation to address the issue of work-related stress in a police force.

In the Operational Service sector our findings showed that general levels of distress are higher among female Officers, Non-commissioned Officers and Patrol Police officers than among their male colleagues in the same roles. Female in all role exhibited higher levels of organizational stress and higher level of distress than male. Such distress appears to be more organizational than operational: it seems linked with the actual job performed within the organization, as also reported by Patterson (2003), Storch and Panzarella (1996), and Slate and Johnson (2013). However, a difference emerged with respect to the strategies used. As shown by correlations data, Officers showed traits of anxiety that influence the way they perceive the difficulties associated with their role and the professional context they are in. They react to an increase in stressors by adopting self-blame and negation coping strategies: on the one hand they blame themselves for their unease (for instance, attributing this to their inability to deal efficiently

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with the situation) and on the other they try to diminish the sense of responsibility by denying that the problem exists. This may be due to the fact that Officers who have put in more years of service become disillusioned and are thus at greater risk of suffering from chronic distress (van der Velden, Rademaker, Vermetten, Portengen, Yzermans, & Grievink, 2013). Male Operational Unit Managers exhibited operational stress when faced with situations characterized by high levels of organizational stress, problems associated with organizational aspects led to high levels of unease in performance of functions. This was particularly evident in individuals prone to trait anxiety.

In the Interior Department, male Executives exhibited operational and organizational distress, using Religion as a coping strategy. Male Officers exhibited organizational and operational distress and implemented adaptive Planning strategies. Female Non-commissioned Officers exhibited the same operational and organizational distress but used an active Venting coping strategy; they also used the self-distraction strategy more than male Officers in the same sector. Male Non-commissioned Officers and male and female Patrol Police Officers exhibited both organizational and operational distress.

Overall, the study population generally demonstrated good use of positive coping strategies, an approach that is traditionally associated with a reduced risk of general psychological distress (e.g. see Elliot & Guy, 1993), and which can therefore be regarded as a protective factor against anxiety and organizational distress.

There are some limits of this study to be considered.

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First, the overall state-trait anxiety levels that emerged in this study are indicative of unease and can potentially give rise to a variety of psychological problems and hinder the adoption of useful coping strategies. However, depressive symptoms and PTSD, which according to the literature are associated with this population, were not investigated in depth within this study. Thus, despite the fact that we know that some of our participants are experiencing stress, we do not know how that stress is manifesting itself within our sample.

A second limit is the absence of any comparison with another population engaged in the same type of work, but operating in another context. A comparison between police officers that operate in different circumstances (for example, in suburban neighborhoods or areas where there are higher levels of organized crime) might allow researchers to gain a better understanding of the variables being investigated, the amount and kind of stress perceived, and the consequences of this stress on physical and mental health.

A third limit is the lack of any comparison between populations operating within the same urban context, but providing a different type of service. Without such a comparison it is hard to know if the levels of anxiety (and the types of coping strategies) observed in this study are actually specific to the policing profession. For example, it could be that people in other professions would report much higher levels of anxiety, or exhibit much more adaptive coping mechanisms, which might change how we think about the results reported here.

Further investigations of these issues within the Italian context are warranted to obtain a more detailed picture of the impact of occupational and

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organizational stress on the daily lives of police officers, and the consequences of this stress in terms of the practical, emotional, relational and physical problems associated with this job. A qualitative study could also shed more light on how policemen and policewomen describe the fatigue and pain typical of their job.

This research may provide the means to help police organizations find ways to limit stressors and their consequences. In particular, a greater understanding of police stress may provide opportunities to develop better training courses to improve stress management skills (see Anshel, Umsheid, & Brinthaup, 2013). These courses may increase officers' abilities to cope with psychologically arduous situations (e.g. self-efficacy enhancement programs) and the severe psychological distress that can often undermine social functioning (e.g., trauma-focused cognitive-behavioral therapy) (Bisson, Ehlers, Matthews, Pilling, Richards, & Turner, 2007). The results from this study suggest that training courses and support for Italian police officers must necessarily take into account the stressors that characterize police work, but also the gender, role, and type of work that the officer is involved in. Tailored training courses and support programs can be useful and effective tools for preventing stress before it becomes chronic.

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