



## Do processes for training future police officers improve their mental health?

### Los procesos de formación de futuros policías, ¿mejoran su salud mental?

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#### Abstract

The selection and training of future police officer candidates are two fundamental processes in achieving an effective police force. From a psychological point of view, police officer training should improve candidates' mental health, so that they can perform their police work more appropriately, benefiting not only themselves but society as a whole. This article attempts to determine whether the training given to candidates selected for training prior to being selected as officers improves their mental health. There is no precedent for research in this regard, since work in Psychology has focused on verifying that subjects do not have psychological pathologies rather than examining the effect of the training they are given. This study looks at a sample of 713 persons selected for a pre-police training program designed to allow them to subsequently join the Peruvian police force. The Derogatis SCL-90 test was used as a personality measure. The test was administered before they received training and after they had completed it (only data from subjects who passed the police entrance exam were considered). The results indicate that the training process produced no changes in personality variables that imply major psychological pathologies, but such changes did occur in variables associated with lower degree psychological pathologies. We can therefore say that there was a decline in mental health among future police officers, or an increase in their psychological pathologies. We will discuss these results and identify the limitations of the study with an eye toward further research. It is recommended that training systems be created that improve the mental health of future police officers.

*Keywords:* police training; mental health; psychological testing; vocational selection; performance prediction

#### Resumen

Los dos procesos fundamentales para conseguir un cuerpo de policía eficaz son la selección y la formación de los candidatos a futuros policías. Desde un punto de vista psicológico, la formación que reciben los policías debe servir para conseguir trabajadores que incrementen su salud mental, de forma que puedan desempeñar la labor policial de manera más adecuada, beneficiándose no sólo ellos, sino la sociedad en su conjunto. Este trabajo trata de verificar si la formación que reciben los candidatos seleccionados para formarse previamente a ser seleccionados como policías, incrementa su salud mental. No existen trabajos previos al respecto, ya que desde la Psicología los trabajos se han centrado en verificar que los sujetos no posean problemas psicopatológicos, pero no en el efecto de la formación que se les imparte. Para llevar a cabo el estudio se contó con una muestra de 713 personas, que fueron seleccionadas para ingresar en una formación pre-policial destinada a poder ingresar con posterioridad en la policía peruana. Para medir su personalidad se utilizó la prueba SCL-90 de Derogatis, aplicando la misma antes de recibir la formación y tras terminar la misma (sólo se tuvieron en cuenta los datos de los sujetos que aprobaron el ingreso en la policía). Los resultados indican que el proceso formativo no produce cambios en las variables de personalidad que implican aspectos psicopatológicos importantes, pero sí en las asociadas con menor grado de psicopatología. Podemos decir, por

tanto, que los futuros policías sufren un decremento de su salud mental, o un aumento de su psicopatología. Se discuten estos resultados y se enumeran las limitaciones del estudio, de cara a efectuar futuras investigaciones. Se recomienda crear sistemas de formación que incrementen la salud mental de los futuros policías.

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Virtually all police forces in the world value officers with adequate mental health. This is so much the cases that the selection process usually verifies the applicant's mental health, along with physical health, physical condition, general knowledge, and legal knowledge. After admittance to the police force, there is normally a process of ongoing training and education

The literature for the most part has focused on the training process for those applicants who have already been selected. Some studies have looked at the training system in general: for example, Carter and Moizer (2011) have created research models for diverse training systems applying system dynamics; other work has focused on studying the most common training techniques (Wilson and Heinonen, 2011).

Fortunately, we have an extensive body of literature on the selection and training of future police officers. Some of this work has focused on the study of personal, social, and demographic variables as predictors of a good future professional performance (Henson, Reyns, Klahm, and Frank, 2010), determining the possible existence of gender discrimination (Prenzler and Drex, 2013), how existing preferences for future police work impact good subsequent performance (Gray, 2011), police careers as a means to provide employment opportunities and integrate minority groups into society (Raganella and White, 2004; White, Cooper, Saunders, and Raganella, 2010), whether candidate behavior during the training period at the academy adequately predicts subsequent good performance at police work (Henson, Reyns, Klahm and Frank, 2010; Wright, Dai, and Greenbeck, 2011; White, 2008), and finally performance on the job after assuming the commission (Raganella and White, 2004; White, Cooper, Saunders, and Raganella, 2010). The selection process in and of itself, and the possible existence of some type of mental pathology among candidates (Lough and Von Treuer, 2013).

There is no adequate consensus on the ideal characteristics of the future police officer, but some work has specified the following (Clemente, Grilling, and Vidal, 1998; Sanders, 2003; White, 2008): emotional maturity, sensitivity to social problems, possessing a spirit of service toward society, being motivated to work in sometimes complicated situations, not being swayed by prejudice or by feelings, adjusting how one react to the laws, having good communication skills and concern for citizens, and have a good ability to confront highly stressful situations.

In general, in terms of police officer selection, psychologists are usually asked to perform screenings that

will rule out individuals with mental health problems from access to the job (Metchik, 1999; Henson et al., 2010; Hughes & Andre, 2007; Wilson, 2012). However, the main problem of such behavior, as authors such as Burkhart (1980) and Lough and Von Treuer (2013) discuss, is that the psychological tests used usually have limited validity.

The goal of this research is to find out if, subjects show changes in their personality variables after they are selected to begin a training process that can facilitate their access to the police force (pre-police training). We start from the idea that once subjects are accepted to receive such pre-police training, following role theory, they will adopt a different form of behavior characterized by a state of mental health better adapted to what candidates think society will demand of them in the future if they become police officers.

## Method

### Participants

The sample consisted of 713 persons who were selected to join a pre-police training program at the Peruvian schools in Ayacucho, Tingo María, Huánuco, Mazamari, and Santa Lucía. The candidates were selected as future students for the PNP/NAS "Sowing Opportunities" pre-police school project (see section on Procedure). The data were coded and 8 subjects were eliminated who had not answered the entire questionnaire were eliminated. The total number of valid subjects in the sample was therefore 713. The final sample contains a somewhat higher percentage of men (59.5%) than women (40.5%). The modal age was 17 years (25.5% of subjects), with 62.1% of subjects falling 17 and 19 years of age (minimum 15, maximum 29 years). The mean age was 18.56 years (SD = 2.062).

### Instruments

The only test used was the Derogatis SCL-90 questionnaire. The 90 Likert-type items on this test (with responses ranging from "I have never displayed a symptom," 0; to "I display it continuously," 4) detect psychosomatic symptoms over the two months prior to the test. This test provides information about the subject on the following variables: somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. It also provides global health indices. GSI, the Global Severity Index (a general symptomatic index), which is a generalized and indiscriminate measure of intensity of global mental and psychosomatic distress; PST (Positive

Symptoms Total, a broad and diverse index of psychopathology); and PSDI (Positive Symptom Distress Index, and indicator of average symptomatic intensity). The SCL-90-R test has been widely tested for reliability and validity (Derogatis and Cleary, 1977a, 1977b; Derogatis, Rickels & Rock, 1976). The Spanish version of the instrument was used (Derogatis, 2002).

### Procedure

The data for this research came from the PNP/NAS "Sowing Opportunities" Pre-police Schools Project. The U.S. Embassy in Peru, through its NAS (Narcotics Affairs Section of the United States), has promoted the Pre-Police Schools in Peru, with the help of the Peruvian organization CEPTIS (Centro de Estudios de Prevención, Tratamiento, Investigación y de Salud, Centre for Prevention, Treatment, Research and Health) as executing agency. The aim is to offer comprehensive training to young people to prepare them to enter the Superior Technical School of the Peruvian National Police (PNP).

The Pre-Police School offers opportunities to young people as part of a strategy of cultural integration that seeks to create opportunities to incorporate such youth into society. They receive free comprehensive training based on the principle of equal opportunities so that pre-police school graduates can participate in the entrance examination for the PNP Superior Technical School on better terms and be prepared in terms of academics, psychological readiness, in-person interviewing skills, physical training, and general culture.

This project, in operation since 2007, aims to provide comprehensive training to selected youth and targets areas of Peru at a high risk for drug trafficking and terrorism, particularly in Huamanga (Ayacucho), Mazamari (Junín), Santa Lucía (San Martín) and Tingo María (Huánuco). The PNP/NAS "Sowing Opportunities" Pre-Police Schools Project was developed as one tool in the drive to reduce the supply of drugs and culturally integrate young people in such areas. The ultimate goal is to create a better quality of life: by creating opportunities to incorporate and train youth from areas at a high risk for drug trafficking and terrorism, it hopes to offer an alternative, non-criminal life and improve participants' cognitive, emotional, and social skills so they can achieve better personal development and strengthen ties to their communities, promoting a culture of legality.

To achieve these objectives youth are prepared and given a strong education and brought up to level in academics, psychological status, physical training, and general cultural knowledge. The experience is a model of comprehensive training. In the project's intervention zones, a total of 2230 youth have participated in the Pre-Police Schools so far.

All participants were informed of the purpose of this study and signed an informed consent form. They were specifically instructed that their information would be

handled anonymously and statistically, that they could see the results, and that they could decline the use of their data at any time. No potential subjects declined to participate. Data were collected between June 2014 and February 2015.

Senior officer psychologists from the PNP conducted the psychological evaluation. The evaluation included an assessment of intellectual abilities, a personality assessment, an assessment of skills through a personal interview, and an evaluation of vocation for police service (also using a personal interview).

The study selected subjects from one of the police preparation classes to be administered the SCL-90-R instrument after they were selected to start their pre-police training, as well as upon completing it. The study included data only from those subjects who subsequently passed the Peruvian police entrance exams. PASW (SPSS) version 18.0 was used to generate the statistical results, calculating the mean differences (t test) for a repeated measures design.

Participation was voluntary for all cases, and all subjects signed an informed consent form that explained the purpose of the study and guaranteed the anonymity of their information. No subject declined to participate.

### Results

Descriptive statistics defining each of the personality variables analyzed were calculated first, in both the pre-training and post-training phases. Specifically, as Table 1 shows, mean scores, standard deviations, and standard errors of the means were calculated.

Table 1.  
*Descriptive statistics pre and post training*

	N	Pre-tests		Post-tests	
		M (SD)	SE	M (SD)	SE
Somatization	602	.304 (.471)	.019	.412 (.588)	.024
Obsession – compulsion	603	.724 (.617)	.025	.640 (.627)	.025
Interpersonal sensitivity	603	.505 (.550)	.022	.532 (.589)	.024
Depression	602	.504 (.498)	.020	.520 (.595)	.024
Anxiety	603	.321 (.462)	.018	.417 (.583)	.023
Hostility	604	.325 (.531)	.021	.402 (.575)	.023
Phobic anxiety	604	.325 (.486)	.019	.414 (.605)	.024
Paranoid ideation	604	.521 (.604)	.024	.521 (.600)	.024
Psychoticism	605	.432 (.525)	.021	.460 (.587)	.023
GSI	589	.049 (.050)	.002	.053 (.060)	.002
PST	610	23.631 (21.577)	.873	27.647 (27.136)	1.098
PSDI	490	.206 (.138)	.006	.177 (.077)	.003

The analysis of these results shows that there are differences between the two phases, but that these differences may not be significant. Relevant significance tests were therefore applied next.

The second descriptive test applied was Pearson's correlation, which allows us to determine whether there is a relationship between each of the personality variables, comparing the pre-training and post-training phase. Table 2 presents this information. As can be seen, all correlations were highly significant: i.e., all personality variables correlate in the two phases, and there were no two scores that were independent of one another.

Table 2.  
*Correlations among personality variables*

	<i>n</i>	Correlation
Somatization	602	.374*
Obsession - compulsion	603	.397*
Interpersonal sensitivity	603	.450*
Depression	602	.452*
Anxiety	603	.398*
Hostility	604	.362*
Phobic anxiety	604	.403*
Paranoid ideation	604	.465*
Psychoticism	605	.379*
GSI	589	.367*
PST	610	.451*
PSDI	490	.390*

\**p* < .01

Specifically, this coincidence is highest in the case of depression and the PST global index. It is lower in the case of the GSI global index. In any case, the correlations are

Table 3.  
*Descriptive statistics and results of de t-test*

Variables	<i>M</i>	<i>SD</i>	<i>SE</i>	95% confidence interval		<i>t</i>	d.f.
				Lower	Upper		
Somatization	-.107	.601	.024	-.155	-.059	-4.372**	601
Obsession - compulsion	.084	.683	.027	.029	.139	3.031*	602
Interpersonal sensitivity	-.027	.599	.024	-.075	.020	-1.125	602
Depression	-.016	.578	.023	-.062	.030	-.688	601
Anxiety	-.095	.583	.023	-.142	-.049	-4.037**	602
Host Drive	-.077	.626	.025	-.127	-.027	-3.041*	603
Phobic anxiety	-.089	.604	.024	-.137	-.041	-3.633**	603
Paranoid ideation	.000	.623	.025	-.049	.050	.022	603
Psychoticism	-.027	.622	.025	-.077	.022	-1.085	604
GSI	-.004	.063	.002	-.009	.000	-1.649	588
PST	-4.016	25.965	1.051	-6.081	-1.951	-3.820**	609
PSDI	.028	.129	.005	.016	.039	4.842**	489

\* *p* < .01; \*\**p* < .001

### Discussion and conclusions

The results obtained support the hypothesis initially raised, but in a partial manner that is contrary to

significant to 1 per thousand.

The results of the test of related samples (*t*), which is the objective of this study, are shown in Table 3. This table specifies the statistics that describe the difference, as well as the lower and upper limit of the confidence interval, the *t* statistic, degrees of freedom, and the significance level.

Data on significance indicate that there are seven significant variables (values below .05): somatization, obsession-compulsion, anxiety, hostility, phobic anxiety, PST (index of range and diversity of psychopathology), and PSDI (overall distress index, which indicates the average symptomatic intensity). On the other hand, the variables lacking significance were: interpersonal sensitivity, depression, paranoid ideation, psychoticism, and GSI (Global Severity Index, a generalized and indiscriminate measure of intensity of global mental and psychosomatic distress).

Therefore, we can say that overall there are significant changes in the personality of the subjects after passing through pre-police training; this did not happen, however, with variables involving severe pathology.

Comparing the direction of this change, we can see that completion of training increases the degree of somatization, anxiety, hostility, phobic anxiety, and the PST index (breadth and diversity of psychopathology) in the subjects. On the other hand, obsessive-compulsion decreases. We must repeat, however, that the scores found do not imply any sort of pathology: that is, the mean scores show that the subjects did not manifest any mental health problems, either before or after. That said, their mental health was poorer after their training period.

expectations. First, some of the personality variables showed no significant changes. We believe that this is a positive finding, insofar as it is precisely those variables representing greater psychopathology that showed no

differences. This implies that the initial selection made by the police psychologists themselves to determine which subjects should be admitted to pre-police training is a suitable screening. That is, it excluded applicants with serious mental problems. However, the majority of the psychological variables did undergo changes when comparing the two time points; however, this variation was in the opposite direction than expected. That is, except for the obsession-compulsive personality variable, which was reduced after the training, the remaining data supports the claim that the subjects' mental health worsened after training. This is an issue that is verified even in the amplitude and diversity of psychopathologies presented. We must repeat, however, that the scores found not imply any sort of pathology, even though the change is significant.

These results cannot be explained in terms of the psychometric properties of the instrument, since it has proved to be suitable in this regard (Derogatis, 2002; Derogatis and Cleary, 1977a, 1977b; Derogatis, Rickels & Rock, 1976). Thus, one of the most challenging critiques concerning police selection instruments (Lough and Von Treuer, 2013) -that normally the psychological instruments used in the selection of police officers do not have sufficient validity- does not affect this data because this test has not been used in our case to select candidates but rather to verify their possible personality changes. Nor in our case has the Derogatis test been used to do screening, as has been made clear in works such as Burkhart (1980), Sanders (2003), and White (2008).

The fact that the training, in this case pre-police training-impairs candidates' mental health leads us to wonder whether such training does not create greater mental stability in police officer candidates but rather destabilizes them and increases their psychopathology. We need to also consider that the sample is composed of subjects who subsequently passed the selection process, so we find ourselves faced with a concerning fact: those subjects who increased their level of psychopathology were more likely to pass the police entrance exam.

There are many limitations of this work: such as the fact that we only studied the pre-police training used to prepare candidates to enter the Peruvian police force, the overly young age of the study participants, or the fact that the subjects live in highly depressed areas of Peru, where many people and especially young people are at risk of devoting themselves to the cultivation and marketing of coca leaf in the future. Despite this, this research clearly shows the need to create training systems that tend to improve the mental health of candidates, since this is the only way to achieve the objective of creating good police officers.

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