

Behind the Blue Shadow: A Theoretical Perspective for Detecting Police Suicide

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***Abstract:** Police officers are at increased risk for suicide. Reluctance by this population to self-report suicidal thoughts requires detection on a different level. Based on existing theory, this paper discusses a possible alternative method for detecting suicidal tendencies among police officers: the suicide Implicit Association Test (IAT). The IAT measures the implicit strength of cognitive identification with death opposed to life. Previous work has demonstrated that a cognitive identification with death over life is associated with both suicide attempts and completions. The clinical application of implicit cognitions, along with other proven clinical measures, may be of value in detecting suicide ideation in police officers or other high suicide risk groups who are hesitant to explicitly report suicidal thoughts. More research is needed to help clarify the clinical usefulness of the IAT and its validity over time.*

Key words: *police, implicit cognitions, suicide ideation, prevention*

The findings and conclusions in this report are those of the author and do not represent the official position of the American Foundation for Suicide Prevention. The findings and conclusions in this presentation have not been formally disseminated by the National Institute for Occupational Safety and Health and should not be considered to represent any agency determination or policy. John Violanti, PhD, is with the School of Public Health and Health Professions, Department of Social and Preventive Medicine, State University of New York at Buffalo, Buffalo, New York. Anna Mnatsakanova and Michael E. Andrew are with the Biostatistics and Epidemiology Branch of the Health Effects Laboratory Division at the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention in Morgantown, West Virginia. This study was funded by the American Foundation for Suicide Prevention. Correspondence regarding this article should be directed to John M. Violanti, PhD, at violanti@buffalo.edu.

Detection is especially important for populations at increased risk for suicide. Police work is a fertile ground for suicide, with chronic stress, traumatic incident exposure, availability of firearms, and a general mistrust and use of mental health professionals (Violanti, 2007). Epidemiological evidence suggests that there is an elevated rate of suicide within law enforcement. An early national occupational study (Guralnick, 1963) found the suicide ratio of male police to be 1.8 times that of the Caucasian male general population. Suicides accounted for 13.8% of police deaths compared to 3% of deaths in all other occupations, and more officers died as a result of suicide than homicide. Milham (1979) found Washington State male police officers from 1950-1971 to

have a suicide mortality rate higher than normally expected in the general male population. Vena, Violanti, Marshall, and Fiedler (1986) found male officers to have an age-adjusted mortality ratio for suicide of approximately three times that of male municipal workers in the same cohort. Lester (1992) found that 7 of 26 countries for the decade of 1980-1989 had police suicide rates above the general population. Forastiere, Perucci, DiPietro, Miceli, Rapiti, Bargagli, et al (1994) found the suicide ratio among male police officers to be 1.97 times as high as the general male Italian population. Violanti, Vena, and Marshall (1996) found that male police officers had a suicide rate of 8.3 times that of homicide, and 3.1 times that of work accidents. Compared to male municipal workers, male police officers had a 53% increased rate of suicide over homicide, a three-fold rate of suicide over accidents, and a 2.65-fold rate of suicide over homicide and accidents combined. Hartwig and Violanti (1999) found that the frequency of police suicide occurrence in Westphalia, Germany, has increased over the past seven years, particularly in the 21-30 and 51-60 years of age categories. Most of suicides were among male officers (92%). Cantor, Tyman and Slatter (1995) found the high rate of suicide among Australian police attributable to stress, health, and domestic difficulties. Occupational problems were more intense than personal ones. Charbonneau (2000), in a study in Quebec, Canada, found police suicide rates to be almost twice that of the general population. Rates were elevated mostly among young officers (20-39 years of age). Gershon, Lin, and Li (2002) provided recent evidence of job-related problems among police officers related to suicide. Officers had an approximate 4-fold risk of being exposed to traumatic work events, a 3-fold risk of exhibiting PTSD symptoms, a 4-fold risk of alcohol abuse, and a 4-fold risk of aggressive behavior.

An Alternative Method for Detecting Police Suicide Ideation

Despite the high risk of suicide among police officers, methods for accurately identifying officers at risk are limited. Police officers are hesitant to divulge sensitive information to mental health professionals or others for fear that it may compromise their position or safety (Violanti, 2007). It therefore becomes important to detect suicide ideation on a different level in this high suicide risk population. Over the past several years, cognitive and social psychologists have developed methods for measuring the strength of automatic associations that individuals hold between various concepts,

referred to as implicit association tests (IAT; Fazio & Olson, 2003). The suicide IAT was developed by Nock, Park, Finn, Deliberto, Dour and Banaji (2010) and has been used to evaluate the extent to which persons associate suicide as being “good” versus “bad” and “like me” versus “not like me,” based on the strength of their identification with death or life. Nock and colleagues (2010) found that identification with death by psychiatric patients was significantly associated with both attempted and completed suicide.

The suicide IAT is a computerized, performance-based reaction time task that requires individuals to classify different stimuli (i.e., words or images appearing in the middle of the computer screen) into concept categories (indicated on the upper left and upper right corners of the screen). In an IAT, concept categories are paired. The speed at which an individual classifies stimuli when the paired categories match an individual’s implicit associations versus the speed of classification when the paired categories do not match an individual’s implicit associations is compared. Faster response times are interpreted as stronger mental associations between constructs.

Generally two groups of attribute categories are tested with the IAT, including “good” vs. “bad” and “like me” vs. “not like me.” These categories yield information about the magnitude to which individuals associate suicide and related life-death concepts with being “good” and “like me.” Suicide IAT methods and scoring algorithms have been outlined by Greenwald, Nosek, and Banaji (2003). Results are calculated as D-scores which correspond to small, medium, and large effect sizes. D-score and Cohen’s *d* are related measures. D-Score cut-points, which empirically measure the strength of identification with death or life, were proposed and validated by Greenwald and colleagues (2003) for the suicide IAT. Although there are still questions about the precise processes underlying IAT effects (Fazio, et al, 2003), the stability of IAT effects (Blair, 2002) and the relations between implicit and explicit measures of constructs (Brauer & Neiedenthal, 2000), several positive aspects of the IAT that have been well-documented in the literature make it a potentially useful tool for suicide assessment.

Discussion

The police are a healthy and psychologically tested occupational group. In the occupation of policing, officers are hesitant to divulge suicidal thoughts due to police cultural

stigma among peers and job consequences. Police officers may believe that reporting mental health problems or suicidal thoughts will affect their careers in areas of promotion and assignments (Violanti, 2007). Because of this resistance, self-report measures as well as other clinical means are necessary. It thus becomes necessary to determine on an individual level who is contemplating suicide. As Nock and colleagues (2010) point out, the stronger the implicit cognitive association with death, the higher the risk of suicide. Therefore, the IAT may provide a behavioral marker between death/suicide and self that distinguishes suicidal officers from other distressed officers on an individual level, predicts future suicide attempts, and provides superior prediction compared with currently used methods (Nock et al., 2010).

It is the task of further research to determine the possible incongruence of self-reported and implicit measures of suicide among police officers. Additionally, correlations with other known precipitants of police suicide, such as depression, stress, and posttraumatic stress disorder, need to be explored (Violanti, 2004). Verification of the IAT as a useful tool in police suicide prevention needs further inquiry with larger samples. As pointed out by Nock and colleagues (2010) the stimuli used in the IAT focuses mostly on death. They suggest that future versions targeting suicide-related cognitions more narrowly may provide even better prediction and require testing in subsequent studies. Nock, et al (2010) also suggest combining IAT information with other data sources (e.g., biological or historical) to advance the understanding, prediction, and prevention of suicidal behavior.

One other methodological problem unique to the police is their occupational exposure to death. Homicides, auto accidents, suicides, and assaults are common events to officers. It is possible that the frequent exposure to death by police officers in their work may influence their responses on a suicide IAT. Implicit as well as explicit thoughts about life may be counterbalanced by a death exposure-based desensitization process (Henry, 2004; Hartley, et al, 2007; Violanti, 2004).

In summary, implicit testing such as the IAT, along with established proven clinical measures, may provide some usefulness in detecting suicide in police officers. Future research may lead to better police entrance screening assessment measures, improved suicide prediction, and to more effective intervention approaches. Accurate assessment and detection of suicidal thinking in police officers may eventually tell us something more about suicidal behavior within this occupation (Jamison & Baldessarini 1999).

REFERENCES

- Blair I.V. (2002). The malleability of automatic stereotypes and prejudice. *Personality and Social Psychology Review*, 6, 242-261.
- Brauer M., Wasel W., & Neiedenthal P. (2000). Implicit and explicit components of prejudice. *Review of General Psychology*, 4, 79-101.
- Cantor, C.H., Tyman, R., & Slater, P.J. (1995). A historical survey of police in Queensland, Australia, 1843-1992. *Suicide and Life Threatening Behavior*, 25, 499-507.
- Charbonneau, F. (2000). Suicide among the police in Quebec. *Population*, 55, 367-378.
- Fazio R.H., & Olson M.A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, 54, 297-327.
- Forastiere, F., Perucci, C.A., DiPietro, A., Miceli, M., Rapiti, E., Bargagli, A., & Borgia, P. (1994). Mortality among urban policemen on Rome. *American Journal of Industrial Medicine*, 26, 785-798.
- Gershon, R.R., Lin, S., & Li, X. (2002). Work stress in aging police officers. *Journal of Occupational and Environmental Medicine*, 44, 160-167.
- Greenwald A.G., Nosek B.A., & Banaji M.R. (2003). Understanding and using the implicit association test: 1. An improved scoring algorithm. *Journal of Personality and Social Psychology*, 85, 197-216.
- Guralnick, L. (1963). Mortality by occupation and cause of death among men 20-64 years of age. *Vital Statistics Special Reports*, 53, Bethesda, Maryland: DHEW.
- Hartley, T.A., Violanti, J.M., Fekedulegn, D., Andrew, M.E., & Burchfiel, C.M. (2007). Associations between major life events, traumatic incidents, and depression among Buffalo police officers. *International Journal of Emergency Mental Health*, 9, 25-35.
- Hartwig, D. & Violanti, J.M. (1999). Suicide by police officials in North Rhine-Westphalia. An evaluation of 58 suicide between 1992-1998. *Archives of Kriminologie*, 204, 129-142.
- Henry, V.E. (2004). *Death work: Police, trauma, and the psychology of survival*. Oxford University Press: Cary, NC.
- Jamison, K.R., & Baldessarini, R.J. (1999). Effects of medical intervention on suicidal behavior. *Journal of Clinical Psychiatry*, 60, 4-6.

- Lester, D. (1992). Suicide in police officers: a survey of nations. *Police Studies, 15*, 146-148.
- Milham, S. (1979). *Occupational mortality in Washington State*. U.S. Dept. of Health, Education, and Welfare, 1-3. Washington, DC: US Government Printing Office.
- Nock, M.K., Park, J.M., Finn, C.T., Deliberto, T.L., Dour, H.J., & Banji, M.R. (2010). Measuring the mind: Implicit cognition predicts suicidal behavior. *Psychological Science, 21*, 511-517, DOI: 10.1177/0956797610364762.
- Violanti, J.M. (2004). Predictors of police suicide ideation. *Suicide and Life-Threatening Behavior, 4*, 277-283.
- Violanti, J.M. (2007) *Police suicide: Epidemic in blue* (2nd Edition). Springfield, Illinois: Charles C. Thomas.