World-first study reveals physical toll on law enforcement recruits

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A study has examined the physical toll law enforcement recruit training has on its participants. Credit: WA Police.

For the first time, a new study has identified the number and type of injuries commonly experienced by police recruits whilst undergoing

their academy training, an important step towards ensuring new officers can in the future meet physical standards whilst reducing the risk of injury.

Edith Cowan University (ECU) researchers analyzed the injuries suffered by Western Australian police recruits between 2018 and 2021—making WA Police the first police organization in the world to look at injuries among recruits in such detail.

The team identified the most common injury types and body regions affected, while also identifying which injuries were most disruptive to recruit training and which demographics were most susceptible.

Lead ECU researcher Dr. Myles Murphy said the information could be used to help agencies across the globe.

"We found less than ten studies on injury profiles in law enforcement recruits around the world, including organizations such as the FBI," he said.

"And that's just the injuries they get, let alone risk factors."

"From an injury prevention point of view, police recruits around the world have not been front of mind. Until now."

Military-like injury risk

WA Police Force recruits undergo vigorous physical training to ensure they are capable to perform the more strenuous aspects of policing.

However, of the 1316 recruits included in the study, 20 percent needed to modify their recruit training due to injury, reflecting injury rates seen in military recruits.

And the injuries could be significant: 87.4 percent required more than eight days of modified training, and 34 percent resulted in more than 28 days.

WA Police Force Academy Principal, Superintendent Kate Vivian, said the organization recognized the physical toll training could have on recruits and funded the ECU study to find ways to ensure graduates met the appropriate standards of physical fitness relevant to operational policing, while at the same time reducing the risk of injury.

"Understanding injury risk and ways to prevent injury occurrence in our recruits is a top priority for the WA Police Force, and we have a number of effective injury prevention processes in place to help identify and mitigate injury risk for recruits both prior to and during their physical training program," she said.

"In addition to these strategies, the WA Police Force continues to support and collaborate with ECU on an initiative to screen pre-inducted police recruits before entering the Academy, providing important benchmarking and physical profiling information.

"This will assist the agency with developing a screening tool and software platform to identify injury risk to future recruits prior to commencing their physical preparation programs at the Police Academy, and operational deployment."

Who and what is most susceptible?

The study looked at each type of injury's prevalence and how many days of disrupted training it caused, to calculate an overall injury burden score.

Knee injuries had easily the greatest impact on training, ahead of

injuries to the shoulder and lower leg.

Ligament and joint injuries had the largest burden for injury type, closely followed by muscle and tendon injuries.

Similarly to other intensive training programs such as military basic training, men under the age of 30 had a substantially reduced injury risk.

When training loads were accounted for, men were 40 percent less likely to be injured and recruits under 30 years of age were 50 percent less likely to be injured.

Next steps

Dr. Murphy said the next step is to conduct body scans of recruits using cutting edge technology at ECU's High Performance Centre, which would allow training programs to be adjusted where necessary to reduce injuries.

"For example, if muscle mass isn't shown to be protective and just adds weight and contributes to stress fractures, then we'd know getting recruits to put on a bunch of muscle wouldn't be wise; you'd be better off focusing on nutrition and cardio-based exercise," he said.

"But if we find muscle is really protective against injury, it would be reasonable to try and bulk them up."

The research was published in *Journal of Occupational Rehabilitation*.

More information: Nicole Merrick et al, Injury Profiles of Police Recruits Undergoing Basic Physical Training: A Prospective Cohort Study, *Journal of Occupational Rehabilitation* (2022). DOI: 10.1007/s10926-022-10059-2