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Physical Activity and Resistance Training Participation, Motivation, and Self-Efficacy in Law Enforcement Officers

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Abstract

The fitness of law enforcement officers generally declines over their career. Physical activity could slow fitness declines due to job-related sedentary behaviors. An officer's self-efficacy (belief in ability to exercise) and motivation (desire to exercise) could predict exercise participation. Sixty officers (48 males, 12 females) completed questionnaires assessing physical activity (weekly strenuous, moderate, and mild exercise sessions; activity score), resistance training (RT frequency [RTF]; average RT sessions per week over past 3 months [RT3M]; number of RT sessions in past 7 days [RT7D]), motivation (Behavioral Regulation in Exercise Questionnaire; categorized as amotivation, external, introjected, identified, integrated, and intrinsic), and coping and scheduling self-efficacy. Stepwise regression derived relationships between motivation and self-efficacy, with strenuous, moderate, and mild PA, activity score, RTL, RT3M, and RT7D (p<0.05). Strenuous PA was significantly predicted by identified regulation (~24% explained variance), moderate PA by scheduling self-efficacy (~7% explained variance). Activity score was predicted by scheduling self-efficacy and identified regulation (~20% explained variance). RTF was predicted by integrated regulation and scheduling self-efficacy (~41% explained variance), RT3M by identified regulation (~38% explained variance), and RT7D by scheduling self-efficacy (~41% explained variance). Intrinsic motivation (identified and integrated) and scheduling self-efficacy appeared important components of whether officers were active and completed RT. Agencies should encourage the development of intrinsic exercise motivation for personnel, which could begin at academy. Scheduling self-efficacy relates to confidence in making time for exercise, regardless of challenges. Provision of short-duration workouts and exercise opportunities (e.g., before/after shifts) would appear key for agency staff supporting officer fitness.

Keywords: coping, identified regulation, integrated regulation, police, scheduling, tactical

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Introduction

The fitness of law enforcement officers generally declines during their career. This includes reductions in lower-body power measured by the vertical jump, muscular endurance measured by push-ups, and aerobic fitness (Dawes et al., 2023), in addition to job-specific task performance measured by obstacle course performance, chain link fence and solid wall climbs, and running (Lockie et al., 2019). Numerous factors cause these fitness decreases, including the effects of shift work, stress, poor dietary choices, decreased sleep, increased sedentary activities, and reduced physical activity (PA) and exercise (Zimmerman, 2012). PA is any bodily movement produced by skeletal muscles that requires energy expenditure (World Health Organization, 2024). Exercise is a subset of PA that is planned, structured, and repetitive and has as a final or an intermediate objective (e.g., improvement in a fitness quality such as muscular strength) (Caspersen et al., 1985). Reductions in PA and exercise can be impactful to officer fitness (Sorensen et al., 2000). Officers are generally not mandated to meet any fitness standards after their training academy (Lockie & Dulla, 2025), which may disincentivize some officers from exercising, given their job-related barriers. Documenting reasons why certain officers are physically active could assist academy training agencies program strategies to encourage career-long fitness, as well as interventions for incumbent officers to initiate PA and exercise. Two factors that could drive PA participation in officers are motivation and self-efficacy.

Exercise motivation analysis delves into why people initiate, persist, or terminate participation in PA and exercise (Wilson et al., 2008). Self-determination theory has been used to study exercise motivation, based upon the supposition that there are two types of motivation that influence personal behavior (Cid et al., 2018; Ryan & Deci, 2000). These are intrinsic motivation, where an individual completes exercise for the inherent pleasure of the activity, and extrinsic motivation, where someone completes exercise for instrumental reasons (e.g., rewards) or to avoid disapproval (Cid et al., 2018). There are six subscales, or regulatory styles, that illustrate the continuum from amotivation to extrinsic and intrinsic motivation (Table 1). What is notable for law enforcement personnel is that during their training academies, the focus is on extrinsic motivation. Fitness training may be mandatory, wherein a recruit must complete a minimum number of sessions (Lockie & Dawes, 2024). Fitness training is also often used to provide discipline and impart psychological stress to recruits (Lockie et al., 2018). Recruits may not receive coaching and education as to why they are completing fitness training (Lockie & Dawes, 2024), which could inhibit the development of intrinsic motivation to exercise. To develop self-determination and intrinsic motivation to exercise, autonomy (ownership of one's behavior), relatedness (social needs), and competence (production of desired outcomes) should intersect (Gaesser et al., 2020; Wang, 2001). However, traditional law enforcement fitness training may not develop these qualities in recruits, which could inhibit the physical activity they choose to do as officers.

Self-efficacy could also influence an officer's desire to exercise. Exercise self-efficacy is the level to which someone can start and maintain participation in exercise (Streetman et al., 2022). Rhodes et al. (2017) stated that self-efficacy is a key correlate of PA in many populations. Streetman et al. (2022) found that self-efficacy alone could not predict PA in police officers, but when combined with age, significant predictive relationships were established (*moderate-to-vigorous PA = self-efficacy for exercise x 0.620 + age x -1.842*; $p = 0.011$, adjusted $r^2 = 0.215$). For law enforcement personnel, there are self-efficacy types that would have relevance. Coping self-efficacy is the confidence to perform exercise under challenging conditions, such as when lacking energy or time, or not feeling well (Rodgers & Sullivan, 2001). Scheduling self-efficacy is confidence in the ability to effectively schedule exercise, regardless of barriers (Rodgers & Sullivan, 2001). Whether an officer feels they can schedule PA and cope with challenging conditions is important in understanding how to promote PA among law enforcement personnel.

Table 1. Self-determination theory continuum with motivation regulatory styles. Adapted from Palombi et al. (2023) and Ryan and Deci (2000).

	Non-Self-Determined					**Self-Determined**
Motivation Type	Amotivation	Extrinsic Motivation				Intrinsic Motivation
Regulatory Style	Non-regulation	External	Introjected	Identified	Integrated	Intrinsic
Perceived Locus of Causality	Impersonal	External	Somewhat External	Somewhat Internal	Internal	Internal
Description	Lack of intentionality to perform exercise. Non-valuing, incompetence, lack of control.	Exercise performed to satisfy external demand (e.g., obtain reward, avoid punishment). Compliance.	Exercise regulated by internal rewards to increase egocentric feelings (e.g., pride, self-esteem) or to avoid guilt. Internal rewards and punishments.	Personal importance and value placed on exercise.	Exercise consistent with one's identity, values, and needs. Awareness, synthesis with self.	Exercise engagement due to personal interest, inherent satisfaction and enjoyment.

The purpose of this study was to detail whether motivation and self-efficacy could predict PA and resistance training (RT) participation in a sample of law enforcement officers. Staff working for the agency surveyed the officers on their PA and RT frequency, coping and scheduling self-efficacy, and exercise motivation. Other data from this sample of officers has been published in different studies (Lockie et al., 2019; Lockie et al., 2021). The focus of this study, however, was on questionnaires regarding PA, RT, self-efficacy, and motivation. It was hypothesized that intrinsic motivation, and coping and scheduling self-efficacy, would predict PA and RT participation in officers.

Methods

Design

A cross-sectional analysis of archival data from a sample of officers from a single law enforcement agency was conducted. The Godin Leisure Time Exercise Questionnaire was used to assess PA (Godin, 2011), with additional questions about RT. A 6-item questionnaire assessed coping and scheduling self-efficacy (Rodgers & Sullivan, 2001). The Behavioral Regulation in Exercise Questionnaire (BREQ-3) was adopted to measure motivation. Stepwise regression was used to calculate whether motivation and self-efficacy could predict PA and RT participation.

Participants

Data from 60 officers (age: 32.08 ± 5.66 years; height: 1.72 ± 0.08 m; body mass: 86.46 ± 16.32 kg; years of service: 4.80 ± 3.47 years), including 48 men (age: 30.83 ± 5.61 years; height: 1.75 ± 0.07 m; body mass: 91.33 ± 14.12 kg; years of service: 4.40 ± 3.30 years) and 12 women (age: 36.83 ± 6.65 years; height: 1.61 ± 0.03 m; body mass: 67.00 ± 7.72 kg; years of service: 6.36 ± 3.81 years), were analyzed. This was a convenience sample of de-identified archival data provided by the agency, and the researchers had no control of the final sample size used in this investigation. The inclusion criterion was complete datasets. The

institutional review board approved the study (HSR-17-18-370), and the research conformed to the recommendations of the Declaration of Helsinki.

Measurements and Procedures

The data were collected by staff working on behalf of the agency during patrol school, which was a 3-week skills refresher program completed by officers who had been working in custody (Lockie et al., 2021). The questionnaires were completed voluntarily at the start of patrol school, which was then followed by a fitness test battery. The fitness test data was not included in this study as the focus was on the questionnaire data. Officers arrived in groups of 10-15 and completed the questionnaires independently in 10-15 minutes.

Physical Activity Questionnaire

The Godin Leisure Time Exercise Questionnaire assessed PA (Table 2) (Godin, 2011). This questionnaire has been deemed to provide valid measurements of PA. To provide a specific example, Amireault and Godin (2015) asserted that healthy adults classified as active (i.e., they completed more strenuous and moderate intensity exercise) by the questionnaire, when compared insufficiently active adults, had a 16% higher maximal aerobic capacity, 5% lower fat mass percentage, and visited a fitness center more frequently per week. Although reliability data for Godin Leisure Time Exercise Questionnaire is not available for law enforcement personnel, it was still deemed appropriate by agency staff to adopt this questionnaire with their officers. This questionnaire considered the average frequency of mild, moderate, and strenuous PA over a 7-day period, as well as overall activity score. Descriptions of what entailed mild, moderate, and strenuous PA were included in the questionnaire (Table 2), but staff reiterated these definitions with officers and provided further explanations or clarifications as needed. Activity score was calculated via the formula:

Activity Score = (9 × Number of Strenuous Sessions) + (5 × Number of Moderate Session) + (3 × Number of Light Sessions) (Godin, 2011).

Participation in RT was assessed through another three items addressing how often the officer engaged in RT in the past 3 months (resistance training frequency; RTF), the average number of days RT per week in the past 3 months (RT3M), and the number of sessions in the past 7 days the officer engaged in RT (RT7D). This part of the questionnaire was measured by Likert scales and designed to be as time efficient as possible, which is essential for ensuring questionnaire or survey completion when working with law enforcement personnel (Lockie & Dulla, 2025). As can be observed in Table 2 within the questionnaire, an explanation for what entailed RT was included. As for PA, staff reiterated these explanations with officers and provided further clarification if required.

Table 2. Physical activity (Godin Leisure Time Exercise Questionnaire) and resistance training questionnaire.

Considering a **7-Day period** (a week), how many times on average do you do the following kinds of physical activity for **more than 15 minutes** during your **free time**.

	Times per week
a) **STRENUOUS EXERCISE (HEART BEATS RAPIDLY)** (i.e., running, jogging, hockey, football, soccer, squash, basketball, cross country skiing, martial arts, roller skating, vigorous swimming, vigorous long distance bicycling, boxing, Zumba, spin classes)	_____
b) **MODERATE EXERCISE (NOT EXHAUSTING)** (i.e. fast walking, baseball, tennis, easy bicycling, volleyball, badminton, easy swimming, skiing, dancing)	_____
c) **MILD EXERCISE (MINIMAL EFFORT)** (i.e. yoga, archery, fishing, bowling, horseshoes, golf, easy walking)	_____

The next section focuses on resistance training: a form of physical activity that is designed to improve muscular fitness by exercising a muscle or a muscle group against external resistance. Examples may include:

- Performing calisthenics such as push-ups and sit-ups
- Lifting weights such as dumbbells or barbells
- Using resistance bands
- Using weight machines

In the past **3 months only**, how often did you engage in resistance training?

1 2 3 4 5 6 7

Never Often

In the past **3 months only**, what is the average number of days per week that you engaged in resistance training?

1 2 3 4 5 6 7

In the past **week only**, how many days did you engage in resistance training?

1 2 3 4 5 6 7

Self-Efficacy Questionnaire

A 6-item questionnaire measured self-efficacy (Table 3) (Rodgers & Sullivan, 2001). Measurement of coping and scheduling self-efficacy has occurred in several other studies investigating exercise behaviors (Rodgers & Sullivan, 2001; Rodgers et al., 2008). Each item in the questionnaire administered by agency staff was assessed on a scale of 0 (not confident) to 100 (completely confident). Questions 1-3 related to coping self-efficacy, and questions 4-6 to scheduling self-efficacy. The officers were not informed about which questions related to which self-efficacy type. The responses were added together and averaged to provide coping and scheduling self-efficacy scores.

Table 3. Exercise self-efficacy questionnaire.

How confident are you that you can: *(Please circle the number that best reflects what you think you can do)*										
1. Do physical activity when you lack energy										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not confident at all										Completely confident
2. Do physical activity when you don't have time										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not confident at all										Completely confident
3. Do physical activity when you don't feel well										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not confident at all										Completely confident
4. Arrange your schedule to include regular physical activity										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not confident at all										Completely confident
5. Overcome obstacles that prevent you from being active										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not confident at all										Completely confident
6. Include physical activity into your daily routine at least 3 times a week										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not confident at all										Completely confident

Motivation Questionnaire

Motivation was measured using the 24-item BREQ-3, which assessed the six regulatory styles, with the term 'amotivation' used instead of 'non-regulatory' (Table 4). The BREQ-3 has been used by numerous researchers investigating exercise motivation in different populations (Cid et al., 2018; Cocca et al., 2024; Markland & Tobin, 2004; Wilson et al., 2006). Within the BREQ-3 administered by staff, each item was scored on a Likert scale from of 0 (not true for me) to 4 (very true for me). Four items in the questionnaire related to each style:

Amotivation: 2, 8, 14, 20
External Regulation: 6, 12, 18, 24
Introjected Regulation: 4, 10, 16, 22
Identified Regulation: 1, 7, 13, 19
Integrated Regulation: 5, 11, 17, 23
Intrinsic Regulation: 3, 9, 15, 21

The responses relevant to each regulatory style were summed to provide the final score for each style (Markland, n.d.).

Table 4. Motivation (Behavioral Regulation in Exercise Questionnaire [BREQ-3]) questionnaire.

WHY DO YOU ENGAGE IN EXERCISE?

We are interested in the reasons underlying peoples' decisions to engage or not engage in physical exercise. Using the scale below, indicate to what extent each of the following items is true for you. Please note there are no right or wrong answers, no trick questions, and your answers will not influence your current position. We simply want to know how you personally feel about exercise.

	Not true for me		Sometimes true for me		Very true for me
1. It's important to me to exercise regularly	0	1	2	3	4
2. I don't see why I should have to exercise	0	1	2	3	4
3. I exercise because it's fun	0	1	2	3	4
4. I feel guilty when I don't exercise	0	1	2	3	4
5. I exercise because it is consistent with my life goals	0	1	2	3	4
6. I exercise because other people say I should	0	1	2	3	4
7. I value the benfits of exercise	0	1	2	3	4
8. I can't see why I should bother exercising	0	1	2	3	4
9. I enjoy my exercise sessions	0	1	2	3	4
10. I feel ashamed when I miss an exercise session	0	1	2	3	4
11. I consider exercise part of my identity	0	1	2	3	4
12. I take part in exercise because my friends/ family/ partner say I should	0	1	2	3	4
13. I think it is important to make the effort to exercise regularly	0	1	2	3	4
14. I don't see the point in exercising	0	1	2	3	4
15. I find exercise a pleasurable activity	0	1	2	3	4
16. I feel like a failure when I haven't exercised in a while	0	1	2	3	4
17. I consider exercise a fundamental part of who I am	0	1	2	3	4
18. I exercise because others will not be pleased with me if I don't	0	1	2	3	4
19. I get restless if I don't exercise regularly	0	1	2	3	4
20. I think exercising is a waste of time	0	1	2	3	4
21. I get pleasure and satisfaction from participating in exercise	0	1	2	3	4
22. I would feel bad about myself if I was not making time to exercise	0	1	2	3	4
23. I consider exercise consistent with my values	0	1	2	3	4
24. I feel under pressure from my friends/ family to exercise	0	1	2	3	4

Statistical Analyses

Statistical analyses were derived using the Statistics Package for Social Sciences (Version 29.0; IBM Corporation, New York, USA). Descriptive data (mean ± standard deviation [SD]) were calculated for all

variables. As they involved Likert scale responses, Cronbach's alpha (α) was calculated for the RT, self-efficacy, and motivation data to determine internal consistency (Hajjar, 2018; Tavakol & Dennick, 2011; Wadkar et al., 2016). An α between 0.60 and 0.80 was considered acceptable internal consistency, and 0.80 was considered good internal consistency (Cocca et al., 2024; Hajjar, 2018). Following this, stepwise regression derived relationships between motivation, coping and scheduling self-efficacy, with strenuous, moderate, and mild PA, activity score, RTL, RT3M, and RT7D. Each PA and RT variable was entered individually as a dependent variable and significance was set as $p < 0.05$.

Results

The internal consistency data is shown in Table 5. The RT and self-efficacy questionnaire data were considered good, which the BREQ-3 data was considered acceptable-to-good. The descriptive data for all variables is shown in Table 6, with the significant stepwise regression data displayed in Table 7. Strenuous PA sessions were significantly predicted by identified regulation (~24% explained variance), while moderate intensity PA sessions were predicted by scheduling self-efficacy (~7% explained variance). Activity score was predicted by scheduling self-efficacy and identified regulation, with ~20% explained variance. Mild PA did not have a significant regression. RTF was predicted by integrated regulation and scheduling SE, with ~41% explained variance. RT3M was predicted by identified regulation (~38% explained variance), and RT7D by scheduling self-efficacy (~41% explained variance). The resulting formulas for each significant stepwise regression were:

Strenuous PA Sessions = -1.665 + (0.315 x Identified Regulation)
Moderate PA Sessions = 1.125 + (0.020 x Scheduling Self-Efficacy)
Activity Score = -3.654 + (0.254 x Scheduling Self-Efficacy) + (2.291 x Identified Regulation)
RTF = 0.709 + (0.235 x Integrated Regulation) + (0.018 x Scheduling Self-Efficacy)
RT3M = -3.244 + (0.489 x Identified Regulation)
RT7D = -0.636 + (0.041 x Scheduling Self-Efficacy)

Table 5. Internal consistency for the Likert scale questionnaire data for resistance training (RT), self-efficacy (coping, scheduling, and overall), and motivation (amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic regulation; overall Behavioral Regulation in Exercise Questionnaire [BREQ-3]) as measured by Cronbach's alpha (α).

Questionnaire or Subscale	Cronbach's α
RT (3 items)	0.832
Coping Self-Efficacy (3 items)	0.840
Scheduling Self-Efficacy (3 items)	0.907
Overall Self-Efficacy (6 items)	0.910
Amotivation (4 items)	0.660
External Regulation (4 items)	0.809
Introjected Regulation (4 items)	0.816
Identified Regulation (4 items)	0.663
Integrated Regulation (4 items)	0.925
Intrinsic Regulation (4 items)	0.916
Overall BREQ-3 (24 items)	0.853

Table 6. Descriptive data for number of strenuous, moderate, and mild intensity exercise sessions per week, overall activity score, how frequently the officer engaged in resistance training in the past 3 months (RTF), average number of days resistance training per week in the past 3 months (RT3M), number of days in the past week the officer engaged in resistance training (RT7D), coping and scheduling self-efficacy, and motivation (amotivation, and external, introjected, identified, integrated, and intrinsic regulation) in law enforcement officers (*N* = 60). AU: arbitrary units.

Variable	Mean ± SD
Physical Activity and Resistance Training	
Strenuous Exercise (sessions per week)	2.39 ± 1.61
Moderate Exercise (sessions per week)	2.22 ± 1.83
Mild Exercise (sessions per week)	2.44 ± 2.29
Activity Score	39.93 ± 22.34
RTF (0-7 Likert scale score)	4.30 ± 1.93
RT3M (days per week)	3.06 ± 2.00
RT7D (days per week)	1.63 ± 1.70
Self-Efficacy	
Coping (AU)	44.67 ± 25.11
Scheduling (AU)	55.39 ± 26.84
Motivation	
Amotivation (AU)	1.08 ± 1.84
External Regulation (AU)	4.08 ± 3.60
Introjected Regulation (AU)	10.59 ± 3.95
Identified Regulation (AU)	12.88 ± 2.57
Integrated Regulation (AU)	11.05 ± 4.42
Intrinsic Regulation (AU)	11.65 ± 4.03

Table 7. Significant stepwise linear regression analyses between motivation (introjected, identified, integrated, intrinsic, external, and amotivation), coping self-efficacy, and scheduling self-efficacy with strenuous physical activity (PA) sessions, moderate PA sessions, activity score, resistance training frequency (RTF), average resistance training sessions per week over past 3 months (RT3M), and number of resistance training sessions in past 7 days (RT7D) in law enforcement officers (*N* = 60).

Variables	*r*	r^2	Adjusted r^2	*F*	*p*
Strenuous PA					
Identified	0.501	0.251	0.238	19.406	<0.001
Moderate PA					
Scheduling	0.289	0.084	0.068	5.292	0.025
Activity Score					
Scheduling self-efficacy	0.403	0.162	0.148	11.223	0.001
Identified	0.471	0.222	0.195	8.124	<0.001
RTF					
Integrated	0.609	0.371	0.361	34.280	<0.001
Scheduling self-efficacy	0.654	0.428	0.408	21.330	<0.001
RT3M					
Identified	0.627	0.394	0.383	37.646	<0.001
RT7D					
Scheduling self-efficacy	0.648	0.420	0.410	41.995	<0.001

Discussion

This study documented whether motivation and self-efficacy could predict PA and RT participation in law enforcement officers. The results showed that identified regulation and scheduling self-efficacy could predict PA, and integrated and identified regulation and scheduling self-efficacy could predict RT participation. The explained variance for the predictive relationships ranged from 7-41%, so there are clearly other factors that influence PA and RT in officers. Nonetheless, the results have application for fitness training at the academy, as well as support provided to incumbent officers.

Leisure time PA can impact to an officer's body composition (Kukić et al., 2020) and general fitness (Sorensen et al., 2000). Strenuous PA was predicted by identified regulation, while moderate PA by scheduling self-efficacy. The activity score incorporated strenuous, moderate, and mild intensity exercise sessions (Godin, 2011), so it was not surprising that both scheduling self-efficacy and identified regulation predicted activity score. Identified regulation is where exercise is personally important and valued by the individual and is considered more intrinsically than extrinsically motivated (Palombi et al., 2023; Ryan & Deci, 2000). Scheduling self-efficacy relates to confidence in making time for and scheduling exercise, regardless of barriers (e.g., job demands) (Rodgers & Sullivan, 2001). While it could be expected that officers who value and make time for exercise would be more physically active, there is practical application to these results, especially considering the RT findings.

Resistance and strength training could be very beneficial to the conditioning of officers. Several different studies of recruits have shown that performing resistance training exercises, whether gym-based or via calisthenics, can contribute to the improvement of multiple components of fitness (Cocke et al., 2016; Lockie et al., 2020; Rodas et al., 2022). RTF was predicted by integrated regulation and scheduling self-efficacy. Integrated regulation is where exercise is internally motivated and consistent with the individual's identity, values, and beliefs (Palombi et al., 2023; Ryan & Deci, 2000). Thus, officers who resistance trained more frequently valued and made time for this type of exercise. RT3M was predicted by identified regulation, so officers viewed RT as being personally important. Scheduling self-efficacy predicted RT7D, which is notable given when the questionnaire was administered. The officers were completing patrol school (Lockie et al., 2021), so officers who wanted to complete RT would have needed to plan their times to do so. Regardless, the RT data supports the PA results; intrinsic motivation and scheduling self-efficacy contributed to exercise participation.

As previously stated, extrinsic motivation is a major factor in academy fitness training (Lockie et al., 2018), and the downstream effect of this could be that post-academy, some officers may lack the motivation, knowledge, and skills to remain physically active during their career. There are strategies to combat this effect. Lockie et al. (2020) stated that staff at one law enforcement academy used the final weeks of academy to allow recruits to design their own fitness programs, with direction from staff. The primary goal was to educate recruits regarding the importance of fitness and provide them with practical tools for training. This could develop autonomy (e.g., ownership of the program), relatedness (e.g., working with the staff to develop the program), and competence (e.g., learning the skills required to exercise), which are all key factors for self-determination and intrinsic motivation (Gaesser et al., 2020; Wang, 2001). Education of officers with regards to physical activity and their fitness could also be supported within health and wellness programs (Lockie et al., 2022). If they are not already, agencies should explore the use of health and wellness programs to help educate and support their personnel.

Scheduling self-efficacy is important to PA and RT participation as lack of time is cited as a prominent barrier to exercise for officers (Feng et al., 2025). There are strategies that could be used to develop an officer's confidence in scheduling exercise, such as education about how to make a program efficient. Microdosing involves using shorter training sessions performed more frequently, which means the training volume is spread over multiple sessions, with intensity maintained (Afonso et al., 2022). While performing a high

number of training sessions may be challenging for an officer, short-duration training sessions can be effective. Bonder et al. (2021) found that officers who spent 4 weeks performing a 15-minute post-shift training session with the hexagonal bar deadlift had a 4.5% increase in their 3-repetition maximum. In adults, short-duration high-intensity interval training sessions (15-25 minutes) could improve aerobic fitness (Rowan et al., 2012) and metabolic risk factors (Babraj et al., 2009). Another strategy could be to provide exercise opportunities for officers, such as workout time before or after shifts (Bonder et al., 2021). Future research should track interventions used to develop motivation and self-efficacy in officers, as well as exercise interventions such as pre- or post-shift workout opportunities.

There are study limitations that should be described. Only coping and scheduling self-efficacy were measured by agency staff with their officers. Other forms of self-efficacy could be important relative to PA and RT participation. As an example, task specificity, which is the confidence in performing the basic actions of an exercise (Rodgers & Sullivan, 2001), could be analyzed in future research with law enforcement officers. Agency staff used the BREQ-3 to measure motivation in their officers (Cid et al., 2018; Cocca et al., 2024; Markland & Tobin, 2004; Wilson et al., 2006). It is possible that other exercise motivation questionnaires, such as that used by Clancy et al. (2017), could yield different results. This study was also a cross-sectional study. Future longitudinal research should investigate whether certain practices, such as increased education about PA and RT, could significantly change a law enforcement officer's exercise motivation, and coping and scheduling self-efficacy. Lastly, the fitness test data was not considered in this research. Forthcoming studies should incorporate the analysis of general (i.e., muscular strength power and endurance, anaerobic and aerobic fitness) and job-specific (i.e., occupational task performance) fitness with motivation and self-efficacy in law enforcement officers.

Conclusion

Law enforcement training staff should encourage the development of intrinsic exercise motivation in personnel, which could begin at academy. While fitness training can be used for discipline, provision of education and skill development could aid in enhancing identified and integrated regulation. To enhance scheduling self-efficacy, the provision of short-duration workouts and exercise opportunities before or after shifts could be beneficial. Future research should investigate whether intrinsic exercise motivation and self-efficacy can be developed in officers, in addition to interventions such as pre- and post-shift workouts.

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