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**BIOMECHANICAL GAIT AND STANCE PATTERNS UNDER DIFFERENT LOADS OF OFFICIAL EQUIPMENT OF INTERVENTION POLICE UNIT OFFICERS**

**DOCTORAL THESIS (skandinavski model)**

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**ABSTRACT**

**Aim:** The main goal of this doctoral thesis is to determine the differences in the biomechanical gait and stance patterns under different loads of official equipment of Intervention Police Unit Officers. Three specific objectives emerge from the main goal:

- 1)** determine the impact of carrying police equipment of different loads on the static parameters during standing.
- 2)** determine the impact of wearing police equipment of different loads on the forces and pressures below the front, middle and rear parts of the feet during gait analysis.
- 3)** determine the impact of wearing police equipment of different loads on the spatiotemporal characteristics of gait analysis.

Three specific objectives were established for three independent studies (**Study 1, Study 2 and Study 3**). **Study 1** aims to provide an answer to the question of whether police equipment with a higher load will significantly negatively effect on the static parameters during standing. **Study 2** aims to answer the question of whether the increased load of police equipment will lead to a significant increase in forces and pressures under the forefoot, middle and hindfoot of both feet during walking. **Study 3** aims to provide an answer to the question of whether police equipment with a higher load will significantly negatively affect the spatiotemporal parameters of gait analysis and its pattern.