

Physical Activity and Mental Health: A Cross-Sectional Investigation into the Relationship of Specific Physical Activity Domains and Mental Well-Being

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Abstract : Background: Research indicates that physical activity (PA) protects us from developing mental disorders. The knowledge regarding optimal domain, intensity, type, context, and amount of PA promotion for the prevention of mental disorders is sparse and incoherent. The objective of this study is to determine the relationship between PA domains and mental well-being, and whether associations vary by domain, amount, context, intensity, and type of PA. Methods: 310 individuals (age: 25 yrs., SD 7; 73% female) completed a questionnaire on personal patterns of their PA behaviour (IPQA) and their mental health (Centre of Epidemiologic Studies Depression Scale (CES-D), Generalized Anxiety Disorder (GAD-7) scale, the subjective physical well-being (FEW-16)). Linear and multiple regression were used for analysis. Findings: Individuals who met the PA recommendation (N=269) reported higher scores on subjective physical well-being than those who did not meet the PA recommendations (N=41). Whilst vigorous intensity PA predicts subjective well-being ($\beta = .122$, $p = .028$), it also correlates with depression. The more vigorously physically active a person is, the higher the depression score ($\beta = .127$, $p = .026$). The strongest impact of PA on mental well-being can be seen in the transport domain. A positive linear correlation on subjective physical well-being ($\beta = .175$, $p = .002$), and a negative linear correlation for anxiety ($\beta = -.142$, $p = .011$) and depression ($\beta = -.164$, $p = .004$) was found. Multiple regression analysis indicates similar results: Time spent in active transport on the bicycle significantly lowers anxiety and depression scores and enhances subjective physical well-being. The more time a participant spends using the bicycle for transport, the lower the depression ($\beta = -.143$, $p = .013$) and anxiety scores ($\beta = -.111$, $p = .050$). Conclusions: Meeting the PA recommendations enhances subjective physical well-being. Active transport has a substantial impact on mental well-being. Findings have implications for policymakers, employers, public health experts and civil society. A stronger focus on the promotion and protection of health through active transport is recommended. Inter-sectoral exchange, outside the health sector, is required. Health systems must engage other sectors in adopting policies that maximize possible health gains.

Keywords : active transport, mental well-being, health promotion, psychological disorders

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