

**【Original Article】**

**Longitudinal Relationship of Participation in Sports Club Activities with a Sense of Coherence and Psychological Distress in University Students: an Analysis of Three Data Points over a Period of 2 years**

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**Abstract**

**Objective:** The present study investigated the longitudinal relationship of participation and non-participation in club activities with sense of coherence (SOC) and psychological distress (K6) in university students.

**Methods:** A complete survey targeting all students who advanced to the second grade in 2013 was conducted at a university to obtain information regarding their participation at clubs and SOC and K6 scores. Follow-up surveys were also conducted at time to advance to their third and fourth grades. In total, 280 male and 360 female students were categorized into five groups: continued sports club participation, interrupted sports club participation, continued volunteer/cultural club participation, non-participation, and others (n = 112, 74, 106, 167, and 181, respectively). A two-way repeated ANOVA mixed model (club participation of five levels at three time points) was used to analyze the data.

**Results:** There were no significant interaction effects of club participation and time point on either SOC or K6. The effect of club participation on the SOC score was significant after adjusting the gender, residential style, time for attending school, and part-time job status ( $P = 0.027$ ). The SOC score of the continued sports group was significantly higher than that of the non-participation group ( $P = 0.017$ ). It was marginally significant in other student groups ( $P = 0.062$ ). The effect of club participation on the K6 score was marginally significant ( $P = 0.054$ ). The K6 score of the continued sports group was marginally significantly lower than that of the non-participation group ( $P = 0.100$ ).

**Conclusion:** These results suggested that the continuation of sports club activities was associated with a maintenance of good SOC and mental health in university students. However, club participation alone might not affect the change in SOC and psychological distress detected in university students.

**Key words:** club activities, sense of coherence, K6, mental health, linear mixed model

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