

# 臺北市原住民青少年運動現況與運動傷害類型調查

## Physical Activities and Sports Injury Patterns among Aboriginal Adolescents in Taipei City

### 中文摘要

本研究之主要目的在於調查臺北市原住民青少年從事運動現況與運動傷害類型。研究對象分為「原住民學生」與「對照組學生」兩大部份；原住民學生樣本係選取所有於九十學年度就讀於臺北市國小五年級、六年級與國中一年級至三年級的原住民學生，共 727 人。對照組學生樣本係篩選與原住民青少年學生樣本同班之非原住民同學中，智育成績與其相近且同性別者，共 727 人。本研究共分為兩個階段進行，第一階段於九十一年六月進行，研究工具為自填式問卷，問卷內容主要包括：人口學特徵、運動狀況以及運動傷害類型等；研究方法係將問卷郵寄至臺北市具有原住民身分學生就讀之國小及國中，並請班級導師協助分發問卷，共回收有效問卷 1,046 份，回應率為 72%。第二階段於九十一年十二月進行，研究對象為郵寄問卷之所有受訪者，以電話追蹤訪談方式詢問樣本有關運動傷害的知識、運動狀況、運動傷害發生頻率、機轉以及處理方式等項目，共收集 733 位學生之資料，問卷回應率為 70%。

郵寄問卷調查結果發現原住民樣本中，有 95% 喜歡運動，但只有 90% 在夏季除體育課以外還有做運動，原住民樣本最常做的前三項運動類型依序為籃球、跑步以及爬樓梯。有 44% 的原住民樣本在九十學年度內，曾因運動而受傷；最常見的受傷的類型依序為扭傷拉傷、瘀青與挫傷；受傷之部位以手部、膝部及踝關節為最多。根據多變項邏輯斯迴歸分析結果顯示：男性（OR=1.62；95%CI=1.25—2.11）、有參加學校體育校隊（OR=1.57；95%CI=1.14—2.17），以及運動累積量（OR=1.24；95%CI=1.08—1.43）與運動受傷有相關，但是族群別則沒有顯著相關。

電話追蹤訪談調查的結果發現原住民樣本中，有 84% 認為全部或大部份的運動傷害是可以預防的，只有 4% 認為運動傷害是無法預防的，但原住民樣本對於引起運動傷害的危險動作認知相當不足，且在族群別方面都沒有顯著差異。有關哪些行為可以避免運動傷害方面，原住民樣本正確認知的比例則相當高。另外，原住民樣本中有 80% 在冬季除體育課以外還有做運動，最常做的前三項運動類型依序為籃球、跑步以及走路。有 20% 與 32% 的原住民樣本分別在暑假以及在九十一學年度第一學期開學後，曾因運動而受傷。原住民樣本在開學後第一次因運動而受傷之狀況分析發現，運動傷害發生地點主要為學校（95%），當時從事之運動類型主要為籃球（40%）與跑步（32%）。最常見之運動傷害類型為扭傷拉傷（56%）與擦傷（24%）；受傷之部位以踝關節（34%）與膝部（21%）最多。運動傷害最常見的受傷機轉為跑（33%）與跳（19%）；運動受傷之處理方式以送保健室（24%）、自行抹藥或貼藥布處理（23%）以及自行冰敷（12%）最多。在九十一

學年度第一學期之運動傷害相關因素方面，根據多變項邏輯斯迴歸分析結果顯示：認為運動傷害大都可以預防以及樣本之運動累積量(主觀或客觀運動累積量)與運動受傷有顯著相關，但是族群別則沒有顯著相關。

本研究建議教育及衛生相關單位應加強原住民青少年預防運動傷害之知識，並運用 Haddon Matrix (哈頓矩陣) 觀念於青少年運動傷害之防治。

## 英文摘要

Injuries are one of the major health concerns among indigenous peoples. Past research on adolescent sports injuries in Taiwan studied either the general student population as a whole, or aboriginal students in particular, but no comparisons had been made. This was the first study to collect data that might identify differences between the two groups.

This study examined physical activity patterns and investigated the correlates of sports injuries among aboriginal adolescents in Taipei City, Taiwan. In 2002, there were 727 aboriginal adolescents, from fifth to ninth grade, enrolled in 103 elementary schools and 74 junior high schools in Taipei City. Self-administered questionnaires were mailed to all of these aboriginal adolescents and also to a control group of non-aboriginal counterparts of the same gender and similar academic achievement. Major items on the questionnaire addressed physical activity patterns in which the students had engaged in the past two weeks and any sports injuries and/or musculoskeletal symptoms they may have experienced in the past three months. In total, 558 aboriginal and 488 non-aboriginal students were recruited with a response rate of 77% and 67% respectively.

Findings from this study indicated that 90% of aboriginal subjects reported engaging in exercise apart from their regular two-hour per week physical education course. The most common types of physical activities aboriginals engaged in the preceding two weeks were basketball, running and stair climbing. Aboriginal students and their non-aboriginal counterparts showed no significant difference in the types of physical activities they engaged in over a two-week period except dancing and mountain climbing. Approximately 44% of aboriginals had reported experiencing sports or recreation injuries during the school term. The most common types of injuries were sprains or strains, ecchymoses, and contusions. The most frequent injury sites were the hands, knees, and ankles. According to multiple logistic regression analysis, the following factors were significantly associated with subjects' sports or recreation-related injuries: being male (OR=1.62 ; 95%CI=1.25—2.11) ; joining a school team (OR=1.57 ; 95%CI=1.14—2.17); and the amount of exercise (OR=1.24 ; 95%CI=1.08—1.43).

We conducted telephone follow-up interviews with 371 of the aboriginal students

after about half a year. Roughly 84% of them thought that sports injuries were preventable most of the time. In this regard, there were no differences between ethnic groups. When asked to identify specifically dangerous exercises, over half of the subjects lacked this sort of knowledge, also with no ethnic difference in this regard. Approximately 56% of aboriginals did exercise longer than one hour per session. About 60% of them preferred vigorous exercise. They exercised an average of seven days in the past two weeks. One fifth of them did not exercise because of laziness and academic pressure. Roughly 20% of aboriginals had sports or recreation injuries during summer vacation and 32% during the school term. Most of them sustained their injuries from playing basketball or participating in running. The most commonly injured sites were ankles, knees and hands. Those students who were better informed about sports injuries had fewer such injuries.

There is a need to strengthen sports injury prevention programs in both the health and education sectors. A culturally sensitive educational program of this kind should be developed for the aboriginal adolescents in Taiwan.