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31 AN INTERVENTION FOR STUDENTS' BICYCLE INJURY IN MIDDLE SCHOOLS IN RURAL CHINA

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Background Bicycle riding is an important means of transportation by students in rural areas of China. Little intervention research is available on developing injury prevention strategies.
Aims/Objectives/Purpose To explore effective intervention to reduce bicycle injuries in rural middle school students of China.
Methods A one-year cluster-randomized controlled trial was conducted in the grade-one students of six middle schools in two towns in Shantou, China. The two towns were randomly assigned to either intervention or control group. Educational materials and activities were delivered to 1381 students in the intervention group during one interventional year, and the content of intervention included traffic safety knowledge, the method of preventing bicycle injury and how to handle the bicycle injury. Questionnaires were carried out on the two groups before and after the intervention to measure incidence rate and cognitive and behavioral level of bicycle injuries.
Results/Outcomes The pre-intervention incidence of bicycle injuries had no significant difference between the two groups ($\chi^2 = 2.326$, $p = 0.127$), while the difference reached significance after intervention ($\chi^2 = 13.409$, $p < 0.001$). In the intervention group, the incidence rate decreased significantly after intervention ($\chi^2 = 8.137$, $p = 0.004$), while no significant change was found in the control group ($\chi^2 = 0.098$, $p = 0.755$) . There was significant difference in the cognitive level of bicycle injuries ($p < 0.01$), with no difference in the behavioral level ($p > 0.05$) before and after intervention In the intervention group.
Significance/Contribution to the field The intervention is effective to reduce the incidence of bicycle injuries and improve the students' cognitive level in a short term. Long term effect and the targeted prevention strategies still need further study.