The correct answer is (B) The sample size may be too small to detect a statistically significant difference.

As a graduate statistics student, you would understand that failing to find a statistically significant difference does not necessarily mean that there is no difference in reality. It is possible that the sample size is too small to detect the effect, leading to a Type II error (failing to reject a false null hypothesis). Therefore, increasing the sample size might be needed to adequately detect the effect if it indeed exists.