

CREDIBILITY OF CAC FLOYER REPORT

In July 2008, the Canadian Avalanche Centre commissioned an “independent” review of the Obvious Clues method prepared by Dr. James Floyer (CAC Floyer Report). At the request of the CAC, Dr. Floyer attempted to review the Obvious Clues method and to replicate Drs. Haegeli and McCammon's findings and the prevention values published in the Avaluator (Haegeli & McCammon, 2006). Dr. Floyer completed his report on September 18, 2008.

The CAC Floyer Report largely confirms our criticism of the Avaluator's Obvious Clues method and prevention values published in the Avaluator. It calls for removal of the Obvious Clues prevention values from future printings of the Avaluator and recommends that Avalanche Safety Training course students be advised not to take the Obvious Clues prevention values seriously. Unfortunately, the report fails to reach the obvious conclusions in light of its findings: to recommend a complete recall of the Avaluator and to recommend that current users and users who purchase the Avaluator of the shelf are fully informed that the Avaluator Obvious Clues prevention values have not been replicated by not only one but two independent studies.

Dr. Floyer was in a difficult position.

First, far from being an “independent” unbiased reviewer, Dr. Floyer was until April 2008, a graduate student of Dr. Bruce Jamieson (Floyer, 2008, Ph.D. Thesis) who has co-authored one of the reports on the Avaluator with Drs. Haegeli and McCammon, Clair Israelson (Executive Director, Canadian Avalanche Center), and Grant Statham (see Haegeli, McCammon, Jamieson, Israelson & Statham, 2006). Dr. Floyer is fully aware that his supervisor co-authored the Haegeli et al. article. Further, in response to our questions about inconsistent prevention values published in Haegeli et al. and the Avaluator, Haegeli et al. corrected the prevention values of the 4 or fewer clues from 47% to 77% to be consistent with the Avaluator (Floyer Report, p. 19). When we asked Dr. Haegeli if he reanalyzed the data and ensured that the error is not in the Avaluator, he did not reply. It is ironic that Dr. Floyer now reports that his “independent” replication arrived at a 47% prevention value for 4 or fewer obvious clues.

Second, far from being an “independent” unbiased reviewer, Dr. Floyer is listed as a “Public Avalanche Forecaster” on the CAC website (www.avalanche.ca/CAC_About_Staff, retrieved on January 9, 2009). Thus, Dr. Floyer works for the Canadian Avalanche Center.

Third, we were unable to find anything in Dr. Floyer's record suggesting that he has training or expertise in behavioral sciences. He received a Ph.D. in Geoscience from University of Calgary in April 2008, a few months before he completed the Floyer Report (September 18, 2008). His Ph.D. research focused on “several matters associated with a digital penetrometer” (www.ucalgary.ca/asarc/people/alumni/james-floyer, retrieved on January 9, 2009).

Fourth, we were unable to find anything in Dr. Floyer's record to suggest that he has any expertise in behavioral methods and treatment of missing values. Indeed, Dr. Floyer's decision to purge 71% of his avalanche accident sample prior to computation of the prevention values is strong evidence that he does not understand the impact of missing values and the impact of deleting 71% of his sample from the analysis (Floyer Report, p. 15).

Fifth, throughout the report, Dr. Floyer fails to give appropriate credit to our research which motivated the CAC to commission his report as well as give appropriate credit to ideas and methods that appeared for the first time in our published work. To illustrate, his Introduction section does not mention that our research was the first to fail to replicate the Obvious Clue prevention values and that this gave rise to his review (Uttl, Henry, Uttl, 2008). In Table 1 (CAC Floyer Report), Dr. Floyer presents a “list of publications associated with the Obvious Clues Method” including various technical reports and user guides but fails to include our research even though he was fully aware of it (see his reference list). Dr. Floyer neglects to mention that we were the first who raised concerns about the treatment of missing data in Drs. Haegeli and McCammon's writing and the Avaluator, considered the

impact of various missing data mechanisms (e.g., MCAR, MAR, and NMAR) on the Obvious Clues prevention values, and included sensitivity analyses in our research. Dr. Floyer also does not mention that we were the first to use external weather and avalanche bulletin data to estimate the status of missing values (Uttl, Henry, Uttl, 2008). However, the most telling of Dr. Floyer's omissions is his failure to mention that long before he proceeded with his attempt to replicate the Avaluator's prevention values, we had already done so and failed, as well as his failure to compare his data to ours. Thus, Dr. Floyer's report is incomplete.

For the CAC report to be credible, the CAC should have commissioned a recognized expert in behavioral sciences and missing value analyses with no ties to Drs. Haegeli, McCammon, ADFAR project, ADFAR 2 project, CAA, and CAC. We are certain that such an expert would not consider the exclusion of 82% of cases in the Avaluator nor exclusion of 71% of cases in CAC Floyer Report acceptable.

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