Memory lapse: Should you worry?
Project MIND examines possible link to future neurological disorders

By Patty Pitts

They’re the bane of baby boomers—those frustrating, momentary memory lapses when a normally sharp, agile mind goes suddenly blank. Although people of a certain age try to laugh off the mental black holes as pesky ‘seniors’ moments,’ what do these moments actually mean when they happen to seniors? Are memory lapses nothing more than a fleeting neurological glitch or are they indicative of a much more serious condition?

Studying the significance of inconsistent memory has dominated the recent research of Uvic psychologists David Hultsch, Esther Strauss and Michael Hunter. For nearly four years the trio has conducted studies as part of Project MIND, their on-going research into “the ups and downs of mental functioning.”

“We all know that some days we’re sharper than others and that could be due to any number of things,” says Hultsch. “Most of the time, these ups and downs don’t make a difference, but when something like a compensation claim or the determination of competency hinges on an individual’s mental ability, any inconsistency can have a major impact.”

It was such an evaluation that led to the creation of Project MIND. Strauss had conducted an evaluation on a man that led her to believe that he was functioning at normal capacity. Another psychologist’s evaluation was more consistent with the effects of a head injury. Strauss found very little research to explain the gulf between the two evaluations but did discover work on mental inconsistency completed by Hultsch and other colleagues, and a partnership was born.

The researchers asked people to perform physical and mental functioning tests (such as memory or balance exercises) repeatedly over periods of days and weeks, noting the peaks and valleys of an individual’s performance. In the initial studies, the investigators were interested in whether inconsistency was a marker of neurological disorder. They contrasted healthy elderly adults with those in the early stages of dementia and those suffering from a non-neurological disease such as arthritis.

“The participants with dementia were more inconsistent than both the arthritis group and the healthy group,” says Hultsch. “That seems to indicate a link between inconsistency and a neurological disorder.” Further, comparative testing of people with chronic fatigue syndrome also suggested a link between that disease and inconsistent mental performance.

“Now that we have a sense of when inconsistency occurs, we want to take healthy individuals and find out if those who are more prone to inconsistent mental and physical performance are more likely to develop neurological problems in the future,” says Strauss.

That will require a longitudinal study. Earlier this year the Canadian Institutes of Health Research awarded Hultsch, Strauss and Hunter more than $370,000 to spend five years testing and following 400 healthy seniors willing to put their minds to the test.

The researchers will visit the volunteers in their homes for two-hour sessions every two weeks over two months. During these visits, the volunteers will be asked to perform memory tests such as recalling stories or lists of words, performing exercises that record reaction times to simple signals, and completing some noninvasive physical tests such as blood pressure. Each year the five bi-weekly visits will be repeated. Volunteers will be invited to participate over four years to track how people change.

This project will help researchers gain valuable insight into the characteristics of mental inconsistency among older people and whether it can predict future problems. The participation of today’s seniors in this study could have a major impact on future seniors.

For further information about being a volunteer with Project MIND, please call 721-7549 or e-mail mindlab@uvic.ca