

\*This paper was created as a required assignment for the CSD9639 Evidence Based Practice

only source of intervention. No limitations were placed on the research design.

#### Data Collection

Results of the literature search yielded four articles congruent with the aforementioned search criteria. Two of the studies employed a randomized controlled trial design. The other two studies employed a single case series design.

#### Single Case Series

Single-subject case series designs (level III evidence) are useful for examining interventions that are tailored to the needs of individual patients (McPherson et al., 2001). This design may be chosen above group designs because individual differences in response to interventions can be camouflaged when measured in a group. The relationship between interventions and patient behaviours are measured before (i.e. pre-treatment) and after the intervention is provided. This ensures that behaviour changes observed in the participants are due to the intervention itself rather than outside factors. If the results can be consistently demonstrated with various participants or behaviours, then it is more likely that the results are generalizable.

**McPherson et al. (2001)** evaluated the impact of memory aids in a series of baseline-intervention (A-B) single case experiments on the proportion of time spent on topic in conversation with caregivers. Participants were five nursing home residents who were diagnosed with severe dementia. Interviews took place with the participant's relatives and staff in the nursing homes to identify what type of memory aid would be most appropriate (memory box, memory book, memory poster) as well as what topic materials should be included. An initial baseline phase took place where each participant was observed during 3 conversations with their "key worker". The subsequent intervention (memory aid) phase commenced for each participant after the carer was given brief instruction on how to use the memory aid. The intervention phase was continued for a minimum of three sessions for all participants, and conversations were approximately 10 minutes long (half of the time with the memory aid and the other half without). The order of these segments was alternated across conversations for each participant. For three of the participants, use of a memory aid did not increase the proportion of time spent on-topic. The remaining two participants spent approximately twice as much time on topic when using the memory aid.

Strengths of this study included a plausible rationale as well as a well-formulated research question. Methods involved alternating the order of the intervention (memory aid/no aid) in each conversation to help

eliminate biases. To increase the reliability of the results, a second observer independently observed and coded the participants' conversational abilities. Agreement between the two observers on the second-by-second occurrence of topic-related speech by the participant was calculated using a three-second tolerance interval which is an appropriate statistic as agreement was defined if both observers recorded its occurrence within three seconds of each other. This statistic used for inter-observer agreement corrected for the influence of the 3s tolerance limit (Cohen's kappa). To determine if the memory aid had beneficial effects on conversational performance, the participants' mean percentage time on topic when using the memory aid had to exceed the baseline levels as well as levels

Familiar individuals of the participants were interviewed to gather personally relevant information. Memory aids consisted of 6-12 personally relevant facts written as simple declarative sentences with corresponding photographs. Dyads took part in 5 minute conversations three times a week. During phases when a memory aid was available, most subjects used their own aid to improve the quality of their conversation (measured on seven different behaviours). Overall, personally relevant memory aids seem to be a

analysis for selected content variables, observational variables, the quality of life difference scores and the MMSE.

Limitations of

