

## Y1: Effect of Digital Memory Album on the Quality of Life of People with Dementia

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### ABSTRACT

**Introduction:** The use of information and communication technologies for the deliverance of reminiscence work in improving the psychosocial well-being of people with dementia (PWD) begins to show its potential venues. **Methods:** This study aimed to evaluate the quality of life of PWD through a randomised controlled trial using a digital memory album (DMA) as interface. 20 PWD living in community were randomly allocated to DMA (n=10) and control group (n=10). The DMA group received 8 sessions of life review process for 8 consecutive weeks resulted in the production of personalized DMA whereby the control group received care as usual. Quality of Life-Alzheimer's Disease (QoL-AD) questionnaire was used as an outcome measure at baseline (T0), post intervention (T1) and 6 weeks (T2) follow up assessment stages. **Results:** QoL-AD was significantly different between the 2 groups ((time x group interaction  $F(1.37; 24.59)=21.72, p<0.001$ )). The DMA group showed a significant increase of mean different score at both post intervention ( $3.40\pm 4.17, p=0.03$ ) and 6 weeks follow up ( $1.40\pm 1.78, p=0.034$ ) whereas the control group mean score was significantly lower after 8 weeks of care as usual ( $3.40\pm 2.55, p=0.002$ ). **Conclusion:** The use of DMA in reminiscence work could be an effective psychosocial approach in improving the quality of life of PWD living in community.

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## Y2: Association between Total Protein Concentration (TPC) and Tumour Necrosis Factor (TNF-alpha) in Nonproliferative Diabetic Retinopathy (NPDR) Tears

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### ABSTRACT

**Introduction:** Previous works have shown changes in tear protein concentration in diabetic patients. However, minimal data is available for Asian diabetics. This study was carried out to compare and investigate the changes of total protein concentration (TPC) and tumour necrosis factor alpha (TNF-alpha) concentration in tears of non-proliferative diabetic retinopathy (NPDR) patients. **Methods:** A total of 15 subjects from each group; (i)normal, (ii)diabetes without retinopathy, (iii)mild NPDR, (iv)moderate NPDR, (v)severe NPDR were screened (to exclude subjects with dry eye) using McMonnies questionnaire. Visual acuity (VA) was measured using LogMar chart. Tears quality and quantity were evaluated clinically using tear break up time test (TBUT) and phenol red thread test (PRT). Basal tears were collected using 20uL glass capillary tube and being stored at -80°C fridge. TPC and TNF-alpha concentration were determined using Bradford assay and Enzyme Link-Immunesorbent assay (ELISA) respectively. **Results:** All subject (n=75) with mean age of  $57.88\pm 4.71$  years old scored equally in their McMonnies questionnaire ( $P=0.898$ ). VA was significantly worsening at severe stage of NPDR ( $p<0.01$ ). Tears quality dropped primarily at moderate NPDR ( $p<0.05$ ) and severe NPDR ( $p<0.01$ ). Tears quantity reduced along the severity of NPDR mainly at severe stage ( $p<0.05$ ). As TPC decreased throughout the NPDR stages, tears TNF-alpha significantly increased mainly at moderate and severe ( $p<0.01$ ). Significant correlations were seen between tears quantity and TPC ( $r=0.237, p<0.05$ ) and TNF-alpha concentration ( $r=-0.384, p<0.01$ ). **Conclusion:** TPC and TNF-alpha concentration change with the progression of retinopathy and might be crucial in assisting early detection or anticipating advanced stage of retinopathy.