

*Computerized interface to investigate the quality of life*

S-P. WANG, J-Y. LIANG, Y-J. CHANG, J-H. CHANG. **Computerized interface to investigate the quality of life in depressive elders.** *Gerontechnology* 2014;13(2):300; doi:10.4017/gt.2014.13.02.103.00 **Purpose** Elderly people experience more difficulties with technology than younger people<sup>1</sup>, especially in depressed elders. Depression decreases elders' motivation to perform daily activities and hinders their quality of life (QOL) by impairing physical and mental function. Moreover, depressed elders have problems reporting their QOL by traditional paper & pencil questionnaire<sup>2</sup>. The purpose of this study was to develop an intelligent computerized interface to offer appropriate assistance for them to report their QOL. **Method** The computerized interface is designed by Microsoft Visual Studio 2012 C#. It shows client-centered displays (*Figure 1 & 2*) with the Taiwan brief version of the World Health Organization's QOL<sup>3</sup>. Running on Microsoft Windows, the most popular computer platform, the adjustable interface was designed by one question per page. It included a font selector and font scaling options to various reading situations according to the depressed elders' needs. Subjects answered question by finger touching simply through personal computer or notebook within 20 minutes after reading one instruction (*Figure 1*). They could change the answers before they went to next question. However, considering the effect of projective responsiveness, they could not go back to previous pages to change the answer responded earlier. The interface design was tested and modified through a pilot study. **Results & Discussion** The computerized interface demonstrated its effectiveness in investigating the QOL of depressed elders. The interface offered a convenient reading situation and instant feedback with final scores (*Figure 3*). Instant result feedback improved patients' motivation to complete the evaluation and also collected the responders' actual response immediately. The interface lessened time consumption and mistakes in keying data. We recruited 66 male subjects with depressive symptoms at an average age of 86 years old from 3 veterans' homes in Taiwan. The subjects' educational level varied from primary school to college. The depressed subjects in this study could complete the QOL through the interface and showed worse QOL scores than those reported by Pan et. al in 2012<sup>4</sup>, whose data were from the younger subjects (average age: 49 years old) through paper & pencil questionnaire. This study presented the advantages of computer technology to help depressed elders complete the questionnaire. Having access to current computer technology may provide an advantage to elders by helping them to live more independently<sup>1</sup>.

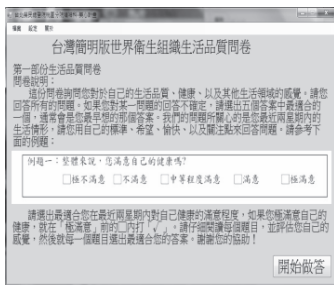
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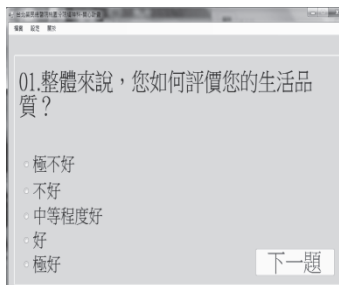
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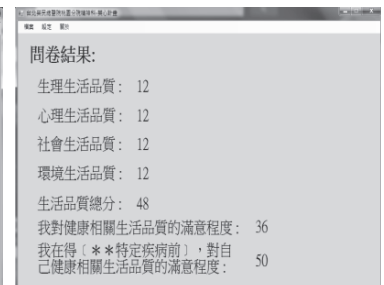
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*Figure 1. Adjustable computerized interface design -instruction*



*Figure 2. Adjustable computerized interface designs-question example*



*Figure 3. Final scores and instant result feedback*