PAPER SESSION 'DEMENTIA CARE'; CHAIR: TO BE DESIGNATED
Virtual support groups for family caregivers of persons with dementia
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Objective. The aim of the project was to evaluate the effects of an innovative internet-based support group on caregiver stress and coping. **Methods**. A password protected website was built with the following links: disease-specific information handbooks, e-mail, question-answer forum, video duplex chat, and group video conferencing. Caregivers located in two remote areas were recruited. Equipment (computers, webcams, headsets, internet access) were installed in their homes. We developed a computer information manual to train the caregivers. Two professional health care providers were trained to deliver the online group intervention reliably using the video-conferencing link. Following ten weekly sessions of professionally facilitated sessions a group member assumed the facilitator task. **Results**. Participant feedback at five-month follow up was extremely positive. Group members had bonded, had provided support for each other in implementing strategies for managing stress more effectively, and reported delaying admission of their relative to a nursing home. All participants found the web site links easy to use and the video-based virtual group process was rated as effective as face-to-face interactions. **Conclusions**. The results of the project show that family caregivers benefit from a tele-homecare program that addresses the challenges of providing care for a dependent family member.

A low-tech intervention and therapy for large groups of persons with dementia
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The Memory Magic concept (copyrighted, patent pending) is an innovative, engaging group activity for up to 20 persons with cognitive disabilities in both institutional and home care settings. A single activity staffer can run the activity leaving other staff to complete other tasks. The game may also be used for those with dementia, head trauma or intellectual disabilities at home. One hundred and thirty-two persons with dementia were observed in 3 states and in each of 3 different care settings, long-term care, adult day care, and assisted living. At least six observations playing Memory Magic and six observations playing a comparable activity were completed for each participant. MMSE and WRAT-3 scores were also collected. Engagement was measured using the Menorah Park Engagement Scale (Camp, 2002). The game was shown to be effective for engaging people with dementia in long-term care, assisted living and adult day care settings. Video of participants playing the game will be shown as well as detailed results of the study.

The use of IT devices for care of elderly with dementia

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With the aim of improving quality of life for elderly people with dementia, and mitigating the burden of care-givers, we performed a risk assessment based on data accumulated at a care facility using IT devices, and developed a care record system. We investigated the practical use of a care record system in a care facility that currently uses such a system. Based on the collected data, we created a bar code system for health-related (meal, excretion and bathing) and nursing-related (temperature, pulse and blood pressure) terms, and built a laboursaving care support system using the bar code input.

The results indicated the importance of an automatic warning function for the risk of falling, intake of meals, frequency of excretion and fever. It is necessary to determine a criterion for alerting care-givers based on references and data. The number of bar codes required for records will also increase, if there are too many items on the record. Therefore, the limitation of record items must still be resolved. It is essential to promote practical use and development of a care support system through the development of an automatic warning system.

Diagnosis of decay in righting reflex with advancing age

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Righting reflex to avoid falls is altered with advancing age. However, previous indices could not diagnose decay in the reflex with advancing age for any states (Eyes Opened / Closed). The purpose of this study is to find a good index for representing how the righting reflex is exacerbated with advancing age. We carried out stabilometry for standing subjects who were healthy adults with age <31 (11M;11F), <60 (10M;12F), and >60 (17M; 5F). The stabilometry required the subjects to stand on a stabilometer with fixing their eyes to the screen (1 min) and their eyes closed (the following 1 min). Statokinesigrams resulting from the stabilometry were analyzed by 8 indices. We herein set two factors that were an aging factor and a states factor. According to two-way analysis of variance with repeated measures, we examine whether two factors are distinguished by the indices. By almost every index except for a total of local sums of forces on chains I, there was no difference among the groups and states without any interaction. It was regarded as the most robust and appropriate index to statokinesigrams for any state.

Gerontechnology: Meeting whose needs?

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To meet the challenges of an ageing society, new care delivery models supported by information and communication technology (telecare) are being introduced. It is important to ensure that these new initiatives are introduced in such a way as to meet the needs of all stakeholders, from the end user to care service providers and government. This paper reports on an investigation linking a better understanding of end user needs with appropriate telecare care service models. The research explored: (i) Quality of life (QOL) indicators: c.40 key issues which impact upon an older person' s QOL were identified; (ii) Factors triggering increasing levels of care and support: c.100 reasons why older people require increased care and support were identified and prioritised into five bands of importance. The top three bands accounted for over a third of trigger factors. Analysis indicates that the majority of these have an impact on the user's QOL; (iii) Service delivery models: the research developed telecare service delivery models based on an understanding of their potential impact on the identified trigger factors and QOL, as well as their ability to be integrated into the existing health and social care system in a sustainable way.

DHEA-S in the management of senescence, stress and gerontological disorders

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Dehydroepiandrosterone (DHEA) and its sulphate (DHEAS) are suggested to be important neurosteroids. Though formation of DHEA-S in mature human brain tissue has not yet been studied, the age-related decline in serum dehydroepiandrosterone (DHEA) and its sulphated ester (DHEA-S) has suggested a relative deficiency of these steroids casually related to the development of chronic diseases generally associated with aging, including insulin resistance, obesity, cardiovascular disease, cancer, reductions of the immune defence, depression and a general deterioration in the sensation of well-being. The numerous studies which have focused on the link between DHEA and cardiovascular disease have generally been inconsistent, generating much debate and controversy on this issue. The proposed presentation will be an analysis of studies on the relationship between endogenous DHEA or DHEA-S, obesity and cardiovascular disease risk and their management through DHEA-S administration. Elevated plasma levels of free DHEA are reported to be associated with reduced obesity in both men and women in literature, however a gender based difference can not be safely ruled out since contradictory results have been reported regarding the relationships between the sulphate ester DHEA-S and adiposity. Besides this, age differences in the populations may be a bewildering factor in such associations; a significant gender based nature and level of stress in relation to rural and urban aging popula-

tion has not been safely ruled out. Hence DHEA-S level may prove a gender dependent predictor of diseases associated with senescence which may also originate in a stressful upbringing, and it may be associated with unusual physical or sexual stress and thyroid dysfunction leading to various physiological correlates like circulating levels of hormones from adrenal, gonadal and other related hormone. Authors demonstrate that DHEA-S-cortisol ratio may prove an index to assess the degree to which an individual is buffered against the negative effects of stress in aging which could be overcome by raised level of DHEA-S.

PAPER SESSION 'GERONTECHNOLOGY IN THE ASIAN REGION'; CHAIR: NATALIA BOBKO (UKRAINE)

Older Chinese in the information age: The Oldkids Internet community in Shanghai, China

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Just as in many other countries across the globe, the Chinese population is aging, and this trend is coincident with the dramatic growth of Internet use nationwide. Previously, the only information about the use of the Internet by older Chinese came from survey studies targeted at all age groups, which have indicated that Internet adoption by older Chinese has greatly lagged behind other age groups. However, quantitative data can reveal little about what the Internet really means to older Chinese, and how older Chinese make sense of the technology in their everyday lives. In this paper, I first introduce Chinese national and regional statistical data to show the aging of the population, the growth of the Internet, and the digital divide between older and younger generations in China in general and Shanghai in particular. Next, I report the results of an ethnographic study conducted in Shanghai, China in 2004. Through in-depth interviewing and participant observation, I explore how older Shanghainese perceive and use the Internet. The data shows that many older Chinese are deeply dedicated to using the Internet, and that the technology has positively influenced their lives in a number of interesting and unexpected ways.