

D. HÄNDLER-SCHUSTER, N. ZIGAN, P. BAUMANN, A. HEINZELMANN, L. IMHOF. **Can activities of daily living be represented by the energy consumption?** *Gerontechnology* 2016; 15(suppl):81s; doi:10.4017/gt.2016.15.s.824.00 **Purpose** There is only a limited amount of evidence on technologies for activity and emergency recognition that have the potential to improve the safety of older adults living^{1,2}. Infrastructure-mediated systems include technologies that can be integrated into pre-existing household infrastructure to automatically recognize changes in everyday human activities³. A pilot study from Switzerland seeks to determine, first, whether activities of daily living can be identified through energy consumption; and second, whether data generated from an activity monitoring system can detect health-related needs that necessitate nursing support⁴. Currently, it is unclear whether individualised movement patterns can be clearly identified based on routine actions. **Method** Sub-analysis including the first consecutive five participants (3 female), all aged over 70 years living on their own. Documentation of their activities by means of an electronic diary and additional hand-written notes over 15 days. Data were analysed using a descriptive exploratory approach and exploratory correlational analysis. **Results & Discussion** Preliminary results revealed that individual movement patterns could be identified based on routine actions. Description of individual patterns are presented and challenges discussed. Well identified pattern where: communication, showering and washing, preparing meals, eating, sleeping, and resting. Our findings suggest that a comparison of activities of daily living with energy consumption data might help to develop activity monitoring systems that may be used to detect health-related needs that have the potential to benefit from nursing support⁴.

References

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