



Western University

From the Selected Works of Laura Murray

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**NONVERBAL STRATEGIES TO ENHANCE
PERSON-CENTERED COMMUNICATION
WITH PEOPLE LIVING WITH DEMENTIA**

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Involving persons living with dementia (PLWD) as members of the research team is an important step in establishing an environment of conducting research “with” as opposed to research “on”. Emerging research is also capturing PLWDs' lived experiences to inform product development. This presentation highlights the importance of conducting product development research with PLWD as key stakeholders and the valuable insight they provide to researchers and developers. Five community-dwelling PLWD with varying diagnoses (60% mild cognitive impairment; 20% Alzheimer's Disease; 20% mixed dementia) and tMMSE scores ranging from 22-26 (Mean=25) participated in two rounds (9 months apart) of 60-minute-long virtual focus groups via Zoom to test multiple versions of LifeBio MemoryTM: an app-based product designed for PLWD which utilizes advanced technology to improve an existing life story intervention. In Time 1, PLWD provided feedback on prototypes of the app and associated training that was used to inform the final product. In Time 2, participants reviewed the final product. A thematic analysis was conducted at each time point to inform further development of the app. Findings determined the following themes: 1) life stories can help with providing better person-centered care, 2) potentially sensitive topics require more training, 3) simple and clear instructions are vital for success. Topics further discussed in this presentation will include PLWDs': 1) thoughts on the concept of LifeBio and its adaptation, 2) comfort with answering life story interview questions, 3) opinions on dementia-friendly materials, and 4) reactions to the use of app-based technology.

ADJUSTING FOR COUNTRY-LEVEL VARIATION IN DEMENTIA PREVALENCE WITH CLASSIFICATION ALGORITHMS IN SHARE

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Background. Population-level dementia prevalence depends on societal factors and individual-level risk and protective factors. To improve our understanding of how these factors interact, we can use cross-national surveys such as the Survey of Health, Ageing and Retirement in Europe (SHARE). However, in absence of validated cognitive assessments, adjusting for underdiagnosis of dementia is needed. The present study sought to explore the usefulness of the Langa-Weir and alternative algorithms to detect probable dementia while accounting for country-level variation in estimated prevalence and underdiagnosis of dementia. **Method.** Data from 57,880 respondents aged 60 years and older to wave 7 of SHARE (2017) with non-missing data on variables related to sociodemographics and cognition were used. Adaptations of the Langa-Weir classification algorithm were compared to a weighted logistic regression model and an XGBoost classifier applying the synthetic minority oversampling technique. Different specifications of algorithms were tested globally and for individual countries and compared

with the World Alzheimer's Report (2015)'s country-level projections of dementia prevalence for 2018. Results. All algorithms accurately classified self-reported diagnosis of dementia (accuracy = 0.90-0.96), with the Langa-Weir classification based on recall and a cutoff reflecting country-specific prevalence outperforming other algorithms regarding compensation of underdiagnosis. Algorithmically detected probable dementia is associated with newly self-reported dementia diagnosis, drop-out and death two years later. **Discussion.** Identifying probable dementia through classification algorithms can increase statistical power and improve validity in cross-national investigations. Further research is needed to replicate the findings in validated cognitive assessments and to identify causes of cross-national variation in dementia underdiagnosis.

SESSION 6160 (POSTER)

KNOWLEDGE AND COMMUNICATION AS ADRD INTERVENTIONS

NONVERBAL STRATEGIES TO ENHANCE PERSON-CENTERED COMMUNICATION WITH PEOPLE LIVING WITH DEMENTIA

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Many people living with dementia experience difficulties comprehending language, and benefit from nonverbal communication (NVC). Yet, little published empirical evidence exists for care partners regarding NVC strategies that support person-centered communication with persons living with dementia. This study aimed to determine whether NVC strategies used by personal support workers accompany verbal communication demonstrating person-centered communication indicators (facilitation, negotiation, recognition, validation). Secondary data analysis of video-recorded interactions (n=40) between personal support workers and simulated persons living with dementia was conducted. The recordings were transcribed according to communication-units, which were coded for person-centered communication and NVC, using a novel coding system consisting of ten NVC strategies. The overlap between NVC strategies and verbal person-centered communication was examined. Findings revealed that personal support workers frequently accompany verbal person-centered communication with NVC strategies. Out of 1848 communication-units in which person-centered verbal communication was used, 69% overlapped with NVC strategies. Gaze overlapped with all person-centered communication indicators frequently, both individually (40% – 49% of overlapping communication-units) and when combined with touch (13-24%). Gestures using objects (with and without gaze) frequently accompanied facilitation (17%) and negotiation (21%), while positive facial expressions (with and without gaze) were commonly found in recognition (16%) and validation (16%). The use of NVC strategies which support person-centered communication may lead to communication enhancement, in turn improving interactions and relationships between persons living with dementia and their care partners.