factor for Alzheimer's disease (AD), the extent to which the two conditions are related remains largely unexplored. Using structural, functional and diffusion magnetic resonance imaging (MRI), we have identified AD-like post-traumatic neurodegeneration patterns that accurately prognosticate cognitive decline after geriatric mTBI. Our results indicate that these features involve cortical regions and circuitry mediating memory and executive function, and that AD neurodegeneration has key structural and functional similarities to post-traumatic neurodegradation. Using machine learning of such similarities, we have accurately forecast the severity of chronic cognitive deficits after geriatric mTBI based on acute neuroimaging measures. Our findings demonstrate that AD-like alterations in brain structure and function observed early after injury can predict post-traumatic mild cognitive impairment, which is itself strongly associated with AD risk.

EXERCISE-ASSOCIATED PATHWAYS AS NOVEL NEUROPROTECTANTS AGAINST CNS AGING AND ALZHEIMER'S DISEASE

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Skeletal muscle has recently arisen as a novel regulators of Central Nervous System (CNS) function and aging, secreting bioactive molecules known as myokines with proteostasis and metabolism-modifying functions in targeted tissues. We have recently generated a novel transgenic mouse with enhanced muscle proteostasis via moderate overexpression of Transcription Factor E-B (TFEB), a powerful master regulator of cellular clearance and proteostasis. We have discovered that the resulting enhanced skeletal muscle proteostasis function can significantly ameliorate proteotoxicity in the aging CNS and improve cognition and memory in aging mice. These neuroprotective benefits are markedly reminiscent of those observed in the aging CNS post-exercise, suggesting enhancing muscle proteostasis may be sufficient to replicate the local and systemic effects of exercise. Identification of pathways regulating crosstalk between skeletal muscle and CNS may yield targets with high therapeutic potential for diseases of the aging CNS.

Session 3440 (Paper)

Nursing Home Staff

COVID-19 IMPACT ON ALBERTA NURSING HOME WORKERS: AN INTERPRETIVE DESCRIPTIVE STUDY WITH DIRECT CARE PROVIDERS

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COVID-19 has devastated the LTC sector, but we lack systematic information on the impact on frontline staff. Our research, a partnership with the continuing care branches of Alberta Health and Alberta Health Services, was aimed at assessing COVID-19 impacts on staffs' well-being and quality of work-life and quality of care and life among residents. Here we report on staff. Using an interpretive descriptive approach, we interviewed 140 staff from January through April 2021, in 34 nursing homes. Facilities selected varied in ownership (public/private) and COVID-19 status (high, moderate, or low incidence). Virtual interviews focused on three key areas of impact: (a) staff mental and physical health, well-being, and work-life, (b) the facility, and (c) on residents. Interviews were analyzed using inductive content analysis. Dominant themes included a commitment of staff to resident wellbeing; a norm of stoicism in which accumulative stress of COVID-19 is recognized in participants' private lives but not their work; the critical role of teamwork in managing extra workload associated with COVID-19 protocols; role flexibility, particularly managers', enables workers to minimize interruptions to care activities; governmental wage subsidies and the restriction of workers to only one facility benefits residents and workers in terms of time and familiarity, but some health care aides faced a wage reduction of 30-40%. Alongside the research component, we regularly met with stakeholders and end-users to discuss emerging findings and potential areas needing urgent intervention, as well as longer-term programming as the impact of COVID-19 will persist for many years.

FACTORS INFLUENCING RESIDENT RESPONSIVE BEHAVIORS TOWARD STAFF IN NURSING HOMES: A SYSTEMATIC REVIEW

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When staff experience various types of resident responsive behaviors, this can lead to decreased quality of work-life and lower quality of care. We synthesized empirical quantitative and qualitative evidence on factors associated with resident responsive behaviors directed towards staff in nursing homes. We searched 12 bibliographic databases and "grey" literature with two key words: long-term care and responsive behaviors resulting in 7671 sources. Pairs of reviewers independently completed screening, data extraction, and risk of bias assessment. Based on extracted data, we developed a coding scheme of factors utilizing the ecological model as an organizational structure. We then applied the coding scheme to quantitative and qualitative articles and prepared narrative summaries for each factor. From 86 included studies (57 quantitative, 28 qualitative, 1 mixed methods), multiple factors emerged, such as staff training about responsive behaviors (individual level); staff approaches to care (interpersonal level); leadership, staffing resources, and physical environment (institutional level); and racism and patriarchy (societal level). Quantitative and qualitative results each provided key insights, such as qualitative results pertaining to leadership responses to reports of responsive behaviors, and quantitative

findings on the impact of staff approaches to care on responsive behaviors. By synthesizing both quantitative and qualitative evidence, this review provides a comprehensive overview of factors associated with resident responsive behaviors towards staff. Our findings offer insights into promising factors for long-term care system and nursing home managers to address to strive to reduce responsive behaviors of residents toward staff in nursing homes.

LONGITUDINAL CHANGES IN LEADERSHIP AND PERSON-CENTERED CARE OVER 5 YEARS IN SWEDISH NURSING HOMES

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Nursing home leadership has been described as crucial for person-centred care and psychosocial climate, but longitudinal data are lacking. The significance of manager educational qualifications and operational model of nursing homes for perceived leadership, person-centred care and psychosocial climate also needs further exploration. This study aimed to explore changes in nursing home managers' leadership, person-centred care and psychosocial climate comparing matched units in a five-year follow-up. Also, to explore changes in leadership characteristics' and the significance of manager qualifications for perceived leadership, person-centred care and climate. Repeated cross-sectional, valid and reliable, measures of leadership, person-centred care, psychosocial climate and demographic variables were collected from managers and staff n=3605 in 2014 and n=2985 staff in 2019. Descriptive and regression analyses were used. Leadership remained significantly associated to person-centred care in a five-year follow-up, but no changes in strength of associations were seen. Leadership also remained significantly associated to psychosocial climate, with stronger associations at follow-up. Also, certain leadership characteristics significantly increased over time, thus, partly confirms previous findings. It was also shown that a targeted education for managers was significantly associated to person-centred care.

SUSTAINABILITY OF INFORM: A COMPLEX TEAM-BASED IMPROVEMENT INTERVENTION IN LONG-TERM CARE

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Improving Nursing Home Care Through Feedback On perfoRMance Data (INFORM) was a complex, theory-based, three-arm, parallel cluster-randomized trial. In 2015–2016, we successfully implemented two theory-based feedback strategies (compared to a standard approach to feedback) to increase nursing home (NH) care aides' involvement in formal communications about resident care (formal interactions [FI], the primary outcome). Here, we report the extent to which FI was sustained 2.5 years following withdrawal of intervention supports. We also report on several determinants of sustainability. We analyzed data from 18 NHs (46 units, 529 care aides) in the control group, 19 NHs (60 units, 731 care aides) in the basic assisted feedback group (BAF), and 14 homes (41 units, 537 care aides) in the enhanced assisted feedback group (EAF). We assessed sustainability of FI, using repeated measures, hierarchical mixed models, adjusted for care aide, care unit and facility variables. In EAF, FI scores increased from T1 (baseline) to T2 (end of intervention) (1.30–1.42, p=0.010), remaining stable at T3 (long-term follow-up) (1.39 p=0.065). FI scores in BAF increased from T1 to T2 (1.33–1.44, p=0.003) and continued to increase at T3 (1.49, p<0.001). In the control group, FI did not change from T1 to T2 (1.25–1.24, p=0.909), but increased at T3 (1.38, p=0.003). Better culture, evaluation and fidelity enactment significantly increased FI at long-term follow-up. Theory-informed feedback provides long lasting benefits in care aides' involvement in FI. Greater intervention intensity neither implies greater effectiveness nor sustainability. Modifiable context elements and fidelity enactment may facilitate sustained improvement.

THE RELATIONSHIP BETWEEN LEADERSHIP STYLES, JOB SATISFACTION, AND TENURE AMONG NURSING HOME ADMINISTRATORS

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Long-term care is considered a subset of health care administration as the characteristics and leadership skills needed differ from other areas of health care. Leadership style directly relates to organizational development, success, and effectiveness. For study purposes, specific focus was placed upon determining the degree to which nursing home administrators (NHAs) perceived styles of leadership determined job satisfaction with tenure as an NHA. Perceptions of leadership style and levels of job satisfaction were determined using a non-experimental, quantitative design, specifically employing a survey research approach. The research instrument in this study, the MLQ, provided the data essential to addressing the research questions and accompanying hypotheses. The effect of study participant response to items on the MLQ associated with the research questions was assessed using univariate analysis of descriptive factors and inferential statistical techniques for statistical significance testing purposes. A total of 87% of study participants indicated that they perceived their leadership style as Nursing Home Administrators (NHA's) was reflective of Transformational Leadership. However, findings indicated that participants who had a Transactional Leadership style were more likely than other types of leadership styles to select an NHA as a career path if given the opportunity to choose this line of work in the future.