

Current Research Studies – Abstracts

Jewish Home Lifecare
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Bereavement in Direct Care Workers: Quality of Care and Workforce Issues

Overview

The purpose of this research is to better understand how direct care workers (i.e., certified nursing assistants in the nursing home, and home health aides in the community) respond to the death of a patient, and what kind of support they may need. This knowledge has important implications for delivery and quality of care provided in elder care, as well as for employment satisfaction and stability among direct care workers in nursing home and home care settings. Issues of dying, grief, and loss are pertinent in these types of health care settings. However, organizations that provide health care to elders typically provide little support, structure, or ritual to help staff through this time. This lack of attention regarding an issue that is a normative aspect of work life for direct care workers who provide care to the elderly may contribute to the extremely high turnover rate in this population that is consistently reported. Evidence from a few exploratory studies suggests that nursing staff experience some degree of grief in response to patient loss (e.g., Wilson & Daley, 1998). Yet, none of these studies provide a systematic assessment of grief and grief processing, and they fail to link assessments to particular deaths. Second, most do not focus on front-line staff who have the closest contact with the patients, and therefore have a tremendous impact on their life quality (Yeatts & Cready, 2007). Finally, few studies link grief-related staff responses with important employment-related outcomes (e.g., staff turnover), as well as examine the individual and institutional factors that predict these outcomes.

The present study aims to provide the empirical knowledge base to adequately identify front-line staff who are in need of support after the death of a patient, and to design support interventions based on empirically identified modifiable factors (e.g., development of rituals; support groups) that can successfully address this need.

The specific aims for the study are:

1. To examine grief symptoms and grief processing in direct care workers after the death of a patient in their care, and the extent to which these experiences parallel the experience of bereaved family members documented in prior research
2. To investigate the relationship between grief-related and employment-related outcomes (e.g., job retention, absenteeism, impact of loss on work)
3. To determine how staff-, patient-, and institutional factors are linked to grief- and employment-related outcomes, and to identify which of these are the strongest predictors of these outcomes.

Methods

The study sample will consist of 120 certified nursing assistants (CNAs) from the Manhattan and Bronx long-term care facilities of Jewish Home Lifecare, as well as 30 JHL home health aides (HHAs), who had a patient loss about two months before. Data collection will involve in-person interviews that take about two hours, and will include the use of standardized grief measures commonly employed in research on family bereavement, as well as collecting of qualitative data around their responses to loss, to capture any unique experiences that would not be documented with standardized measures. We will also investigate potential employment-specific consequences of patient death (e.g., job satisfaction and retention), as well as staff-related factors (e.g., cultural views on death/dying), patient/relational factors (e.g., suffering of patient, relationship with patient), and institutional factors (e.g., site-/unit-specific rituals) that may influence a direct care worker's response to patient loss.

Status

Start up in progress.

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Control Strategies and Mental Health in Impaired Elders

Overview

The primary aim of this longitudinal study was to examine the strategies used by older persons with visual impairment to balance and rebalance control in daily life, and to understand the course and consequences of such strategies over time.

Control-related behavior is classified as primary or secondary as well as selective or compensatory (Heckhausen & Schulz, 1995). The aim of primary control strategies is to actively change the external environment, whereas the aim of secondary control strategies is adaptation of internal processes (e.g., goals or interpretations). Selective control strategies target the focused investment of internal resources in a chosen goal either in terms of behavioral resources such as effort or time (Selective Primary Control), or motivational resources such as goal commitment (Selective Secondary Control). Compensatory strategies serve to respond to a dearth of resources to attain a given goal; either in terms of bolstering behavioral resources by external means (Compensatory Primary Control), or by disengaging from the unattainable goal through self-protective strategies (Compensatory Secondary Control).

Because late-life vision loss constitutes a major threat to one's sense of competence and control, this study provided a unique opportunity to apply the life-span theory of control (Heckhausen & Schulz, 1995) to a prototypical age-related loss characterized by gradual onset and progressive deterioration. In addition, differences in assimilative and accommodative coping dispositions (Brandtstädter & Renner, 1990) that may underlie patterns of control-related coping behavior were examined.

The specific aims of the study were:

1. To identify the control strategies used in adapting to chronic age-related vision impairment and to assess the extent of change or stability in these strategies over time.
2. To identify the extent of change or stability in dispositional assimilative and accommodative coping styles over time.
3. To examine the relationship between control strategies and dispositional coping styles among older adults with vision loss and the stability or change in this relationship over time.
4. To identify the control strategies and dispositional coping styles, as well as patterns of change in each, that are predictive of more positive outcomes (i.e., functional competence and psychological well-being) at different points over time.

Method

The study sample consists of 364 older persons with a recent onset of age-related vision loss due to macular degeneration, a common cause of vision loss in late life. Data were collected through in-person interviews at baseline, 1- and 2 year follow ups, with one interim telephone interviews each year at 6 and 18

months to capture both short and long-term stability and change in the use of control strategies over time, and the latter's relationship to functional and psychological well-being. Interviews included both structured and open-ended assessments of participants' efforts to cope with the daily life challenges resulting from their vision-related disability. Thus methodologically, we combined a theory-guided effort (top-down approach) with thorough grounding in narrative data (bottom-up approach). This allows for an anchoring of information on adaptation processes in concrete daily life situations that are uniquely relevant to each individual, paired with a theory-driven examination and conceptualization of this information. Analyses addressed cross-sectional and longitudinal relationships using regression, individual growth modeling, and structural equation modeling (SEM) techniques.

Status

The final report to NIMH has been completed. Several articles have been published (see below). Additional manuscripts are being prepared for submission to peer-reviewed journals.

Findings – Highlights

- Our narrative-based findings demonstrated how inventive and resourceful older adults can be when it comes to the strategies that they use to try to deal with vision-related challenges.
- Participants' narratives reflected both the four general control categories and the subcategories formulated by the authors of the theory (e.g., for Selective Primary Control, invest time/effort, learn new skills, and fight difficulties). Moreover, we found that exhaustive representation of the data required us to define some new subcategories (e.g., different types of help seeking).
- Our study is the first to show with such level of detail that control-related behavior as conceptualized by the life-span theory of control can be found in open-ended accounts of people with visual disability.
- Although compensatory primary control strategies seem to be the heart of coping with disability, all other strategy types are also needed, regardless of disability level. Our findings clearly showed that coping with disability at any point requires both strong goal-engagement efforts and psychological self-protection.
- An important insight gained from this research is that the coping challenge of visual disability is very different from the type of challenges that previous research using the Life-span theory of control and related theories as framework has focused on (e.g., developmental deadlines such as childbearing).
- Although age-related vision loss involves irreversible loss, there is really no point at which a general shift from goal-engagement to disengagement makes sense, given that disengaging from functioning would not be an adaptive solution, and it is not a singular goal.

- Overall control strategies showed less change over time than was expected; the same was true for dispositional coping. However, increases or decreases in specific strategy use were found for particular strategies among subgroups of participants (e.g., more help seeking with higher levels of impairment), indicating that the importance of certain strategies may change depending on the course of progressive vision loss.
- For the most part, dispositional coping styles (i.e., accommodative and assimilative coping) were positively related to control strategies in that those who reported higher levels of assimilative and accommodative coping were also likely to report higher levels in control strategy use. Only the compensatory control strategy of using other people's help was unrelated to dispositional coping styles. This perhaps reflects the almost universal need for at least some assistance from others among older adults experiencing disability. Furthermore, dispositional coping was not related to patterns of change over time in control strategy use.
- In concurrent analyses, we found protective effects of control strategies as well as dispositional coping for our well-being outcomes; however, we found little evidence for such predictive effects for change in well-being outcomes over time. Thus, our evidence suggests that control strategy use and in particular accommodative coping dispositions had a positive influence on participants' well-being in terms of status rather than change over time.
- Finally, we found more evidence of change over time in the type and nature of challenges reported by participants than we found for strategy use. This shows that we did capture a span of time in the participants' lives during which the challenges they faced due to their vision impairment changed. But evidently, participants responded to these changing challenges with a somewhat stable or consistent repertoire of strategies involving both goal-engagement and disengagement/self-protective efforts.

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Project Period: 2002-2010

Publications

Boerner, K., Boerner, K., Brennan, M., Horowitz, A., & Reinhardt, J. P. (2010).
Tackling vision-related disability in old age: An application of the life-span

- theory of control to narrative data. *Journal of Gerontology: Psychological Sciences*, 65B(1), 22-31.
- Boerner, K., Horowitz, A., Reinhardt, J. P., & Brennan, M. (2004). Coping behavior and mental health in elders with vision loss: Preliminary findings from a longitudinal study. *Maximizing Human Potential*, 12(2), pp. 3, 7.
- Boerner, K. & Wang, S. (2010). How it matters when it happens: Life changes related to functional loss in younger and older adults. *International Journal of Aging and Human Development*, 70(2), 227-243.
- Wang, S. & Boerner, K. (2008). Staying connected: Re-establishing social relationships following vision loss. *Clinical Rehabilitation*, 22, 816-824.

Presentations

- Boerner, K., Brennan, M., Horowitz, A., & Reinhardt, J. P. (November, 2009). Self-reported strategy use by disability level: An application of the life-span theory of control using narrative data. In H.W. Wahl & A. Horowitz (Chairs), *Adaptation to vision loss: A synthesis of recent empirical work*. Symposium presented at the Annual Convention of The Gerontological Society of America in Atlanta, GA.
- Reinhardt, J. P., Horowitz, A., Brennan, M., & Boerner, K. (March, 2009). *Effects of initiating vs. accepting help on well-being: Research findings and practice implications*. Paper presented at the Annual NCOA-ASA Conference, Chicago, IL.
- Reinhardt, J. P., Horowitz, A., Boerner, K., & Brennan, M. (March, 2008). Satisfaction with daily living task performance in disabled elders: Research & practice perspectives. Paper presented at the Annual NCOA-ASA Conference, Washington, DC.
- Reinhardt, J. P., Boerner, K., Horowitz, A., & Brennan, M. (November, 2008). Control Strategy Use and Satisfaction with the Completion of Daily Living Tasks. In H. W. Wahl (Chair), Symposium presented at the annual scientific meeting of The Gerontological Society of America, National Harbor, MD.
- Brennan, M., Boerner, K., Horowitz, A, & Reinhardt, J. P. (November 2007). *Further development of the vision-specific OPS scale: Differentiating three dimensions of compensatory primary control*. Poster presented at the annual scientific meeting of The Gerontological Society of America, San Francisco, A.
- Horowitz, A., Boerner, K., Brennan, M., & Reinhardt, J. P. (November 2007). Tackling late life challenges: Control strategy use as a function of disability. In H. W. Wahl (Chair), *Crossroads of psychological, social and physical function: Implications for disability research*. Symposium

- presented at the annual scientific meeting of The Gerontological Society of America, San Francisco, CA.
- Boerner, K., Brennan, M., Horowitz, A., & Reinhardt, J.P. (February, 2006). The Role of compensatory strategies for adaptation to late life chronic disability. In H.W. Wahl (Chair), *Psychological control, independence and well-being in aging*. Symposium conducted at the International Conference on Aging, Disability, and Independence, St. Petersburg, FL.
- Boerner, K., Brennan, M., Horowitz, A., & Reinhardt, J. P. (November, 2006). Coping with functional loss in later life: Compensatory strategy use and well-being. In H. W. Wahl & K. Boerner (Chairs), *Adaptation under constraints: Chronic conditions and very old age*. Symposium presented at the annual scientific meeting of The Gerontological Society of America, Dallas TX.
- Brennan, M., & Boerner, K. (November, 2005) *Psychometric Analysis of the TEN-FLEX Coping Scales: Evidence for 2nd-order Factors and Further Psychometric Development*. Poster presented at the annual scientific meeting of The Gerontological Society of America, New Orleans, LA.
- Brennan, M., Boerner, K., Horowitz, A., & Reinhardt, J. P. (August, 2005). *Problem solving and adaptation to age-related vision loss*. Poster presented at the annual convention of The American Psychological Association. Washington, DC.
- Horowitz, A., Boerner, K., Brennan, M., & Reinhardt, J. P. (November, 2005). Coping with Age-Related Vision Loss: The Role of Domain-Specific Control Strategies as well as Assimilative and Accommodative Coping for Well-Being. In K. Boerner (Chair), *Coping with disability in later adulthood*. Symposium presented at the annual scientific meeting of The Gerontological Society of America, New Orleans, LA.
- Brennan, M., Boerner, K., Reinhardt, J. P., & Horowitz, A. (November, 2004). *Applying the Life-span Theory of Control in Adjustment to Chronic Illness: The Development of the Vision-Specific OPS Scale*. Poster presented at the annual meeting of The Gerontological Society of America, Washington, DC.
- Horowitz, A., Boerner, K., Brennan, M., & Reinhardt, J. P. (November, 2004). *Successful aging within the context of disability: Use of control strategies by visually impaired elders*. In D. Jopp (Chair). *Successful development and aging: On the impact of resources, strategies, and beliefs*. Paper presented at the annual meeting of The Gerontological Society of America, Washington, DC.
- Horowitz, A., Boerner, K., Reinhardt, J. P., & Brennan, M. (November, 2002). *Applying the Life-Span Theory of Control to research on adaptation to*

age-related vision loss. Paper presented at the annual meeting of The Gerontological Society of America, Boston, MA.

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Culture Change in the Nursing Home: The Impact on Resident, Staff, & Family

Background

Traditional nursing home care has focused on treating the medical needs of residents rather than on the individual's quality of life (Barkan, 1981). However, unlike the hospital setting where patients typically stay for brief periods of time, the nursing home is a long-term-care residence where people live for months and often years. For nursing home residents to thrive, they need the opportunity for continued growth of mind and spirit in addition to good medical care. New initiatives are currently underway to transform the culture of the nursing home to one that emphasizes quality of life, resident centered care, family involvement, and staff empowerment (Bond, et al., 1996, Thomas, 1994, & 1999, & Kehoe, 2001). The change in focus that these new resident centered quality of life initiatives bring is often termed culture change.

Since 2003 Jewish Home Lifecare (JHL) has been undergoing a culture change transformation at our three nursing home campuses. Since the start of the culture change initiative we have simultaneously implemented a culture change study to monitor and understand the phenomenon and effects of culture change at Jewish Home Lifecare.

Specifically, the purpose of this study is to examine (1) the extent to which culture change has been implemented on our communities and (2) the impact of the culture change initiative on resident care, satisfaction, and quality of life; family satisfaction; and staff work practices and satisfaction.

Study Design

Timeline. The culture change study is a longitudinal study with three data collection periods. The first period (Time 1, pre-culture change) occurred between 9/03 and 3/04, the second period (Time 2) occurred between 01/05 and 05/05, and the third period (Time 3) occurred between 12/07 and 7/08.

Design. Thirteen long-term-care communities across our Manhattan, Bronx, and Westchester campuses participated in this study. Seven of the communities in the study were culture change communities and six communities were designated as control communities. During most of the first two data collection periods the control communities continued to function along our traditional pre-culture change model of care. The control communities however began to phase into the culture change process during the end of the Time 2 data collection period. By Time 3, all communities in the study became culture change communities at different stages of the transformation process. Therefore, in later analyses, the **original culture change group** is also referred to as the **early culture change group** and the **original control group** is also referred to as the **late culture change group**.

Culture Change Initiative

The following are a list of some of the general culture change initiatives at JHL:

1. The creation of the Community Coordinator position. Each community has a community coordinator who has the responsibility of facilitating the change process and organization on the communities. The community coordinator acts as the community "team leader" interacting closely with all members of the community including all staff, residents, and residents' family members.
2. Flattening of the organizations system from a departmental hierarchy to community teams.
3. Collaborative work environment among staff.
4. Resident centered care.
5. A greater focus on integrating family members into life on the communities as well as in care and treatment planning.

Subjects

The subjects in this study were the residents, staff, and primary family contacts on the 13 study communities. Every staff, resident, and family member associated with a study community for at least two months prior to the start of each data collection period was asked to participate in the study. In Time 1, n=287 staff members, 199 nursing home residents (69 of whom were interviewable), and 108 family members; in Time 2, n =280 staff members, 233 nursing home residents (79 of whom were interviewable), and 122 family members; and in Time 3, n=216 staff members, 212 nursing home residents (61 of whom could be interviewed), and 170 family members.

Measures

Residents: Face-to face interviews were conducted with residents to examine their satisfaction, quality of life, and perceived control over everyday activities in the nursing home. Resident behavioral measures were collected by asking nursing assistants about resident behavior and mood. Chart reviews for data on diagnoses, cognitive status, ability to carry out activities of daily living, etc, were also conducted on each resident.

Families: Families completed surveys examining their satisfaction with the nursing home and their perceptions of the degree to which culture change values were actually implemented on the communities.

Staff Members: Staff completed surveys examining employee satisfaction, burnout, collaborative decision-making, and perceived implementation of culture change values on the communities. Number of days floated to other units were also examined.

Culture change checklist: Staff on each community completed a questionnaire examining the community's culture change initiatives (e.g. number of community meetings, involvement of various staff members in community decisions, number of community celebrations).

Measures were collected during each data collection period.

Project Status

Data analyses are on-going as is dissemination of findings and preparation of manuscripts.

Selected Findings on Time 1 to Time 2 Change

1. On culture change communities, residents indicated increased control and well-being from Time 1 to Time 2 as compared to residents on control communities.
2. On culture change communities, staff reported increased implementation of culture change values on their communities as compared to staff on control communities. Additionally, while increased emotional exhaustion was found among staff on the control communities, emotional exhaustion remained stable on the culture change communities.
3. Families on culture change units indicated increased implementation of culture change values on their communities as compared to families on the control communities.
4. Staff on culture change communities reported increased decision-making by community coordinators, environmental service workers, and food service workers and an increase in celebrations including resident birthdays and staff retirement parties as compared to staff on control communities.
5. A significant relationship was found between staff and resident outcomes, with more positive staff outcomes related to more positive resident outcomes.

Findings on the Relationship between Resident Quality of Life and Satisfaction

6. Residents' feeling of dignity was the most consistent predictor of resident satisfaction predicting both general satisfaction in the nursing home and residents' satisfaction with staff.
7. Spiritual well-being and food enjoyment in addition to dignity were significant predictors of general satisfaction with the nursing home.

Findings from Time 1 to Time 2 to Time 3

8. The findings indicate that the greatest positive impact of culture change occurred near the initial implementation of the intervention however

sustainability of the change and its impact becomes more difficult over time. These findings are consistent with other culture change initiatives and illustrate the importance of developing strategies focused on sustainability.

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Orah Burack, MA, Senior Research Associate

Funded by: Jewish Home Lifecare (JHL)

Project Period: 2003-2010

Publications

Ramarajan, L., Barsade, S. G., & Burack, O. R. (2008). The Influence of organizational respect on emotional exhaustion in the human services. *The Journal of Positive Psychology, 31*(1) 4-18.

Presentations

Downes, D., & Burack, O. (2010) Culture Change in the Nursing Home: A Five Year Longitudinal Study Examining the Impact of Culture Change on Elder Nursing Home Residents. To be presented at the Pioneer Network's 10th Annual National Conference in Indianapolis, Indiana.

Burack, O. R., Weiner, A. S., Barsade, S. G. (2009). Culture change in the nursing home: The relationship between culture change values and staff affect. Presented at the 62st annual meeting of the Gerontological Society of America in Atlanta, GA.

Weiner, A., Burack, O., & Barsade, S. (2009). Culture change and staff satisfaction: Using research to guide practice. Presented at the Pioneer Network's 9th Annual National Conference in Little Rock, Arkansas.

Burack, O. R., Annunziato, R. A., Barsade, S. G. & Weiner, A. S. (2008). Culture Change Values in the Nursing Home: The Family Perspective. Presented at the Joint Conference of The National Council on Aging and American Society on Aging, Washington, DC.

Burack, O. R., Weiner, A. S., Barsade, S. G. & Annunziato, R. A. (2007) Culture change in the nursing home: The impact of residents, staff, and families. Poster presented at the 60th annual meeting of the Gerontological Society of America. San Francisco, CA.

Annunziato, R. A., Burack, O. R., Barsade, S. G. & Weiner, A. S. (2007) Principles of Culture Change: What Matters to Nursing Home Residents. Poster presented at the 60th annual meeting of the Gerontological Society of America. San Francisco, CA.

Websites

Weiner, A., Reinhardt, J., Barsade, S., & Burack, O. (2009). Culture Change in the nursing home: The impact on elder, staff, and family. Research in the Culture Change Spotlight-Jewish Home Lifecare of New York.
<http://www.pioneernetwork.net/Resources/ResearchSpotlight>.

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Depression, Disability, & Coping in Midlife

Overview

The primary goal of this research was to better understand the implications and consequences of a chronic disability in middle adulthood. Vision impairment is the second most prevalent disability among middle-aged and older adults (NCHS, 1993), affecting 9.3 million Americans between the ages of 45 and 64 (The Lighthouse, Inc., 1995). Although little is known about how middle-aged adults deal with such a disability, recent evidence from a prior study conducted by the principal investigator (NIMH 1 R03 MH65382, K. Boerner, PI) shows that the risk for subsequent mental health problems such as clinically relevant levels of depression tends to be higher for middle-aged compared to older adults (Boerner, 2004). Also, the disability is likely to interfere with the pursuit of goals common during this point of adult life, which can result in a significant interruption of daily routines and emotional distress (Wheeler & Munz, 1990).

Research addressing the process of adaptation over the life span has shown that, in the case of loss and decline, adaptive coping approaches involve the ability to adjust one's goals and preferences to what is feasible instead of trying to pursue blocked goals (e.g., Brandtstädter, 1999). Prior work by the PI demonstrated that such coping tendencies were particularly beneficial for the mental health of middle-aged adults who reported high levels of vision-related disability (Boerner, 2004). There is also preliminary evidence from a study of vision loss among older adults suggesting that a person's concrete day-to-day coping with goal interference should be assessed in addition to dispositional coping tendencies (Horowitz et al, 2005). Thus, the proposed research seeks to characterize the situation of a thus far understudied group, middle-aged adults with visual impairment, by assessing their important life goals, the extent to which their disability interferes with these goals, and how they cope with this goal interference.

Specific Aims

1. To identify the life goals that are important to middle-aged adults with a visual impairment.
2. To explore the extent to which visual impairment and functional disability interfere with particular life goals, and how individuals with visual impairment deal with this interference.
3. To examine the effect of vision-related goal interference on mental health, as mediated by both general coping tendencies as well as situation-specific coping.
4. To explore the links between general coping tendencies and situation-specific coping, as well as the differential effects of dispositional and situational coping on mental health.

The insights gained from this research will have several important implications: 1) findings can serve to identify those who are at risk for poor adaptation (e.g., developing clinical depression); 2) coping processes identified as beneficial can be incorporated into preventative and therapeutic mental

health interventions as well as into rehabilitative treatment programs; and 3) given that intervention goals which encompass important life goals are more likely to result in successful rehabilitation outcomes (Sivaraman Nair, 2003), it is important to understand how life goals can be affected by midlife disability. Further, since vision impairment is a prototypical disability, these insights can also be generalized to other disabilities.

Methods

216 middle-aged adults (age 40-64) were recruited from a community-based vision rehabilitation agency. Telephone interviews that included structured and open-ended assessments of participants' life goals and their efforts to cope with vision-related disability and goal interference lasted about 40 minutes. Analytical approaches included theme-based as well as conceptually guided coding of the narrative data, and Hierarchical Regressions and Structural Equation Modeling (SEM) to examine the effects of impairment status, goal interference, and coping on mental health outcomes.

Status

The final report was submitted to NIA in March 2010. Manuscripts are being prepared for submission to peer-reviewed journals.

Findings

Study findings illuminate the multifaceted goals held by middle-aged adults with vision impairment. Across the three assessed domains, functional goals were reported most often, followed by social goals and psychological goals. Among functional goals, career, daily tasks, and mobility goals were identified by the highest percentage of participants. Family goals were identified most frequently for social goals, and life quality was identified most often for psychological goals.

Findings further illustrate how visual disability can interfere with goal pursuits, and that this interference is met with a rich array of coping strategies that reflect both assimilative and accommodative modes of coping. More specifically, strategies reported in response to inference with life goals reflected that a majority of participants used different types of strategies across the board - investment of internal resources, implementation of new approaches, reliance on technology as well as on help from others, and psychological self-regulation. Overall, the data showed clearly that coping with visual disability requires both coping directions - goal engagement and goal adjustment or disengagement. In terms of identifying individuals with vision impairment who may be at risk for negative mental health consequences (e.g., clinical levels of depression), findings suggest that low levels of accommodative general coping may be considered a risk factor.

Study findings underscore the need for vision rehabilitation to carefully assess client's life goals and to tailor services to the particular needs of the clients in addressing these goals. Moreover, we suggest that rehabilitation planning should encompass both a systematic assessment of personal goals as well as a program component regarding future steps managing and engaging with those goals. This program component can assist clients with a careful

analysis of their important goals in terms of feasibility, and offer guidance and counsel on how to work towards an accommodative rethinking or modification of unfeasible goals. For goals that have become challenging but remain feasible, this program component can provide problem-solving support and planning in terms of how to continue goal pursuit. Thus, rehabilitation services can not only more effectively assess the life goals of individuals with visual disability, but also provide guidance and support to help these individuals adapt to their disability and continue to live meaningful, goal-driven lives.

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\$100,000

Project Period: 1/1/07 - 3/31/10

Publications/Presentations

Boerner, K. & Popivker, L. (August, 2008). Coping with functional loss in midlife. In K. Boerner (Chair), *Heartaches and headaches in midlife: The impact of untimely stressors*. Symposium presented at the Annual Convention of the American Psychological Association in Boston, MA.

Boerner, K. (November, 2009). Coping with disability – Life philosophy versus handling concrete challenges. In D. Jopp (Chair), *Mechanisms underlying resilience: Examination of resources and psychological strengths*. Symposium presented at the Annual Convention of The Gerontological Society of America in Atlanta, GA.

Boerner, K. (November 2010). Style vs. Substance: Differential Effects of Dispositional and Goal-Specific Coping. Poster to be presented at the Annual Convention of the Gerontological Society of America in New Orleans, LA.

Gibson, B., & Boerner, K. (November, 2009). *Disability and depression at midlife: Making sense of comparisons across three ethnoracial groups*. Poster presented at the 62nd Annual Convention of the Gerontological Society of America in Atlanta, GA.

Popivker, L. & Wang, SW, & Boerner, K. (August, 2008). *Dealing with functional loss: Effects on life goals*. Poster presented at the Annual Convention of the American Psychological Association in Boston, MA.

Popivker, L., & Wang, S. W., & Boerner, K. (in press). Eyes on the prize: Life goals in the context of visual disability in midlife. *Clinical Rehabilitation*.

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Driving Transitions and Mental Health in Impaired Elders

Overview

The transition from driver to ex-driver is a challenging turning-point for older disabled adults that can influence not only mobility, but also social ties, the ability to work, one's sense of independence, and public safety. An increasing number of Americans will face this transition as the population ages. However, little is known about the psychological and social influences on driving transitions.

The purpose of this study is to better understand the ways older adults with vision problems adapt and make decisions about their driving. Specifically, we will identify the personal, social, and contextual factors that contribute to the decision to self-regulate or stop driving, as well as the reciprocal associations between well-being and changes in driving behavior. In addition, we draw on a model of health behavior change (Maes and Gebhardt, 2002) to examine how a person's goal structure can either facilitate or block a change in driving behavior and the impact of changes in driving or driving cessation on well-being.

Method

A total of 381 older adult drivers (age 55+) have been recruited from a community-based vision rehabilitation agency and other community service organizations. Three in-person interviews were conducted (baseline, year 1, year 2), with two brief telephone interviews at 6 and 18 months from baseline. Three telephone interviews also were conducted with a contact (family or friend chosen by the primary participant) at baseline, year 1, and year 2. Cross-sectional and longitudinal associations will be analyzed with Regression-, Individual Growth-, and Structural Equation Modeling techniques.

Status

Recruitment of the baseline sample (N=381) has been completed. Data collection for all follow-up points has been completed except for year 2 follow-ups, which will be completed by August, 2010. Analyses of the baseline and follow-up data are in progress, and manuscripts are being prepared.

Preliminary Findings

The following findings are from presentations at major conferences and are divided by the specific aim that is addressed:

Specific Aim #1: To identify the extent of driving self-regulation and cessation and examine their impact on mental health.

1. The extent of self-regulation was examined at baseline and at the 12-month follow-up.

- At baseline, the vast majority of participants (94%) were engaging in at least one self-regulatory driving behavior, with avoiding driving at night the most frequently reported behavior (80%). For the full baseline sample, the average number of self-regulatory driving behaviors was almost 6 ($M = 5.8$, $SD = 3.3$, Range 0-14).
 - At the 12-month follow-up, 208 participants were still driving. Among them, the vast majority (95%) continued to engage in at least one self-regulatory driving behavior. For these participants, the average number of self-regulatory driving behaviors was still almost 6 ($M = 5.7$, $SD = 3.2$, Range 0-14).
2. The extent of driving cessation was examined at the 12-month follow-up. Of the 253 participants interviewed at 12 months after baseline, 45 (18%) had stopped driving.
 3. At the 12-month follow-up, ex-drivers had significantly higher levels of depressive symptomatology than continuing drivers, but did not have a greater probability of meeting criteria for clinical depression
 4. Becoming an ex-driver is a significant independent predictor of increased depressive symptomatology following driving cessation even after controlling for common predictors of depression including health and social support variables. This finding highlights the importance of designing interventions that address the mental health consequences of driving cessation and not just transportation needs.

Specific Aim #2: To examine the influence of personal, social and contextual resources on driving regulation and cessation decisions.

1. For self-regulation of driving behaviors, we examined concurrent correlates at baseline. We found that:
 - Poorer vision & greater functional disability are associated with greater self-regulation (SR).
 - Subjective & psychosocial variables are also significant independent correlates of SR:
 - Subjective reports of functional vision problems are more strongly related to SR than clinical measures, and, in fact, completely mediate the effect of measured acuity (but not field) on SR
 - Greater endorsement of the value of Autonomy is associated with less SR
 - This value is encouraged in rehab philosophy but may be a barrier to recognizing need to adjust driving behaviors
 - Receipt of rides from family is related to greater SR

- Giving rides to friends is done in spite of health limitations
 - This responsibility may limit the driver's ability and/or willingness to modify driving behaviors
- 2. For driving cessation, we examined baseline predictors of cessation by 12-month follow-up. Greater odds of driving cessation were predicted by:
 - Poorer subjective visual functioning score
 - Higher perceived goal interference score
 - Not providing rides to family and friends
 - Driving cessation was not predicted by:
 - Demographic, health, and functional disability variables
 - Objective measures of vision (acuity, contrast, field)
 - The amount of self-regulation at baseline
 - Living with a driver or use of alternate transportation

Specific Aim #3: To identify the key personal, social and contextual resources that, concurrently and over time, mediate the impact of driving self-regulation and cessation on mental health outcomes.

1. Preliminary analyses of 12-month follow-up data show that among ex-drivers, higher levels of depressive symptomatology was associated with several common predictors of depression among older adults: a) younger age, b) greater functional disability, c) poorer self-rated health, d) lower levels of perceived availability and adequacy of social support, e) weaker autonomy and mastery beliefs, and f) greater anxiety.
 - Ongoing analyses will address the mediating or moderating effects of such variables on the effects of cessation on depressive symptoms.

Findings Conclusion

Insights gained from this study can be used to inform the growing number of community-based, governmental and private programs that focus on assisting older drivers in making timely decisions that will protect both public safety and the individual's mental health. Rehabilitation and mental health professionals who work with older drivers can also use this information to facilitate the transition from driver to ex-driver in late adulthood.

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Funded by: National Institute on Aging; Grant #RO1 AG020579
\$2.3 million

Project Period: 2004-2010

Publications

Horowitz, A., Boerner, K., & Reinhardt, J. P. (2002). Psychosocial aspects of driving transitions in elders with low vision. *Gerontechnology, 1*, 262-273.

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Presentations

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Horowitz, A., Reinhardt, J.P., Boerner, K., & Mock, S. (March, 2006). *Conversations about driving with family, friends, and physicians by older adults drivers with vision problems*. Paper presented at the Joint Conference of the American Society on Aging and the National Council on Aging. Anaheim, California.

Reinhardt, J.P., Horowitz, A., Boerner, K., & Gibson, B. E. (March, 2007). *How is driving cessation related to earlier driving behavior, utilization of alternative transportation, and prior planning?* Paper presented at the Joint Conference of the American Society on Aging and the National Council on Aging. Chicago, Illinois.

Reinhardt, J.P., Horowitz, A., Boerner, K., & Gibson, B. E. (November, 2007). *Driving cessation: Preliminary findings on psychological, behavioral, environmental and social factors*. Poster presented at the 60th Annual Scientific Meeting of The Gerontological Society of America. San Francisco, California.

Horowitz, A., Reinhardt, J.P., Boerner, K., & Gibson, B. E. (March, 2008). *Is there congruence in the perspectives of older drivers and their family members?* Poster presented at the Joint Conference of the American Society on Aging and the National Council on Aging Washington, DC.

Horowitz, A., Reinhardt, J.P., Boerner, K., & Gibson, B. E. (July, 2008). *Driving behaviors among older adults with impaired vision*. Paper presented at Vision 2008: The International Low Vision Conference. Montreal, Canada.

Gibson, B. E., Horowitz, A., Reinhardt, J.P., & Boerner, K. (November, 2008). *We need to talk: Conversations between family members and friends about driving with vision loss*. Poster presented at the 61st Annual Scientific Meeting of The Gerontological Society of America. National Harbor, Maryland.

Horowitz, A., Reinhardt, J.P., Boerner, K., & Gibson, B. E. (November, 2008). *Driving behaviors among older adults with impaired vision*. Poster presented at the 61st Annual Scientific Meeting of The Gerontological Society of America. National Harbor, Maryland.

Horowitz, A., Reinhardt, J. P., Boerner, K., & Gibson, B. E. (March 2009). *Driving behaviors of older adults with impaired vision: From research to practice*. Paper presented at the Joint Conference of The National Council on Aging and American Society on Aging in Las Vegas, Nevada.

Reinhardt, J. P., Gibson, B. E., Boerner, K., & Horowitz, A. (November, 2009) Predictors of Driving Cessation in Older Adults with Vision Loss. Poster presented at the 62nd Annual Scientific Meeting of the Gerontological Society of America, Atlanta, Georgia.

Horowitz, A., Gibson, B. E., Reinhardt, J. P., & Boerner, K. (January, 2010) Mental Health Consequences of "Giving up the Keys:" Driving Cessation among Older Adults. In N. Choi (Chair). *Depression in Vulnerable Older Adults: Rates, Symptom Severity, and Potential for Intervention* (Symposium). Paper presented at the Annual Conference of the Society of Social Work Research, San Francisco, California.

Updated May 2010

Enhancing Life Quality for Residents with End-Stage Dementia and Families

Background and Significance

Caring for persons with advanced dementia in nursing homes is challenging for nursing home clinicians and devastating for families. The chronic, progressive cognitive and physical decline in end-stage dementia is compounded by numerous co-morbidities and an increasing frequency of acute events (e.g., pneumonia). Patients' families face the need to make treatment decisions regarding interventions such as artificial nutrition, CPR, and hospitalization often without adequate knowledge or support. There is no universal approach to care of the end-stage dementia patient. Some nursing home physicians prescribe and/or families demand aggressive care (diagnostic tests, antibiotics, intravenous therapy, feeding tubes) in advanced dementia, although much of the literature recommends avoiding medical interventions in this case. Advance directives may not be broached by staff or families until death is imminent. Other primary care teams are more likely to consider a palliative approach and/or referral to hospice. Defined as an interdisciplinary initiative that maximizes physical and psychosocial comfort for the dementia patient and his/her involved family, a palliative approach to care is driven by the goals of care for that particular patient. Only a small percentage of the many elders with advanced dementia receive palliative care to ease this final transition for themselves and their families. Although use of palliative care and hospice principles has long been encouraged for this vulnerable population, there is minimal empirical evidence of its profound potential for both patients and families. Families need education about the potential burdens and benefits of interventions, and the use of palliative care techniques. Documented evidence of the success of this model could lead to the development of best practice models for late stage dementia patients. Future research can build on this model with the development of mechanisms for family and staff support.

Methods

Study participants are family members of residents who meet study criteria. Elders who meet criteria are age 60+, with a diagnosis of dementia documented in the medical chart, and advanced dementia (MDS Cognitive Performance Score score = 4, 5 or 6; significant functional impairment). Exclusion criteria for elders includes residence in acute-care rehabilitation, cognitive impairment due to another cause (e.g., brain injury; end of life course may differ from those with a progressive dementia), and in hospice (can not randomize to the PCI or usual care control group).

This study is a 6-month, prospective, randomized trial of a structured palliative care intervention (PCI) versus a usual care control with social contact for families of residents with advanced dementia in a large skilled nursing facility. The PCI consists of formalized interactions between a trained palliative care team and involved families/friends of residents for the purpose of determining

goals of care, working to achieve those goals, and providing psychosocial support to the family. Usual care is that routinely provided to residents with advanced dementia which varies in terms of treatment offered and communication with family members including any efforts towards palliative care (unstructured). To control for the effect of greater attention to and greater interaction between staff (the Palliative Care Team; PCT) and families in the intervention group, a non-specific social contact component (regular, non-specific telephone contact with social work or nursing intern) is included in the usual care condition.

To monitor care over time, telephone interviews with family contacts are completed at three points (baseline, 3 & 6 months after baseline (or 4-6 weeks after a resident's death should that occur). Residents' medical interventions (emergency room visits, and hospitalizations), sentinel events (hip fractures, pneumonia), and advance directives (DNR, DNH) are extracted from medical records. Analyses will examine within-group change over time, and between group differences to determine whether or not the PCI group families have different outcomes than the usual care control group families.

Current Status

The project is in the baseline data collection phase.

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Simon Kassabian, MD, Clinical Palliative Care Consultant
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Funded by: Alzheimer's Association
\$237,067

Project Period: 2008-2011

Updated: June 2010

Geriatric Career Development (GCD): Examining the Impact of a Healthcare Career Training Program for At Risk-High School Students in the Nursing Home Setting

COLLABORATIVE STUDY WITH GCD PROGRAM AT JEWISH HOME LIFECARE

Overview

The purpose of the present study is to evaluate the efficacy of the Youth Workforce Geriatric Career Development Program (GCD) which is a program designed for youths with specific interests in pursuing healthcare careers and provides them with experience in a geriatric healthcare setting. The program is being conducted at the Bronx and Manhattan JHL campuses.

The GCD is designed as a four-year program beginning in 10th grade and continuing through one year post high school. During the first three years of the program students spend approximately eight hours per week at JHL where they receive a structured work based learning curriculum, social service support, academic support, career and college counseling, wellness and training to obtain licensure in an allied health profession, such as certified nursing assistant, emergency medical technician, or pharmacy technician. Youth learn about geriatric issues and health career opportunities through a combination of lectures, mentoring, shadowing, and rotating departmental internship experiences. Additionally, each youth is assigned an elder resident mentor and together they complete a series of exercises over the course of the program to enhance student's knowledge of the aging process, promote heightened awareness and sensitivity to aging issues and provide an enjoyable and mutually beneficial experience for both. The last year of the program (one year post high school) includes tracking students' post high school academic and career experiences, goals, and achievements.

Method

Subjects: Typically each year approximately 30 10th grade students enter the 4 year program at each campus for a total of 60 new students. (Last year in the first year of the Manhattan program approximately 30 new students were accepted into 11th grade as well as 10th grade for a total of 93 new students at the two campuses.) Students stay in the program through high school and for one year post high school. The Bronx campus is in its 4th year of the program, with 107 participants, and the Manhattan campus is in its 2nd year with 87 participants.

Measures: When students first enter the program and then at the end of each academic year, students complete questionnaires about their academic and career goals, attitudes and knowledge about the elderly, self-esteem, perspective taking, empathy, resiliency and well-being. At the end of each year, students complete program evaluation surveys.

Student demographic information, report cards, NYS Regents Exam scores, and SAT and PSAT scores are also collected. Program measures collected include student daily logs, program attendance, and program retention. Additionally, high school graduation and post high school academic and career goals and achievements are tracked.

Status

Both the GCD program and the GCD study are in their fourth year. To date, seven data collection periods have been completed (Year 1, Year 2, and Year 3 baseline for incoming students and follow-up for all students and Year 4 baseline).

Results from Year 3 of the GCD Program and Year 4 to date

1. As part of the GCD program, we track student demographics. Eighty four percent of students are female. Eight nine percent are black or Hispanic. The majority (70%) of students' household income is \$30,000 or less. Ninety four percent of students have a mother figure in the home and 48% have a father figure at home.
2. An ongoing goal of the program is to develop more efficient and effective ways to help students maintain and even improve their academic performance. For the majority of students, no significant differences were found in students' fall and spring semester GPAs (for the 2008/2009 academic year). The Manhattan 10th graders, however, did show a significant decrease in GPA over the course of the year.
3. GCD students' number of mean absent days from school is less than the mean number of absent days for the general population of students from the partner schools that they attend (for academic year 2008/2009).
4. Performance on PSAT and SAT practice tests showed significant improvements from the fall to spring semesters.
5. Program retention for academic year 2008/2009 was 82%.
6. 2009/2010 is the first year that we have been able to track an alumni class (n=17). 39% of program graduates are attending 4 year college programs, 44% are attending 2 year college programs, one student could not attend college due to financial issues, one could not attend due to immigration status, and one student moved out of the country and can not be tracked. 27% of alumni are already embarking on health care careers and are employed by JHL part time.
7. Overall, student evaluations of the program have been consistently positive. The area that has typically been weakest, however, has been the development of relationships between staff on the communities and students. Additionally, while students indicate that they have had positive

experiences with the elderly at JHL and express the desire to pursue a health care career, they do not expect to pursue a career working with the elderly. These are both areas we plan to explore in more detail.

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Gregory Mateo, Program Coordinator
Peter Rodriguez, Youth Program Specialist
Wanda Pion, Program Assistant

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Generous Individual Donors
New York City Department for the Aging
Total = \$1,750,000
Research = \$97,000

Project Period: 2006 - 2010

Presentations

Abbott, N. & Burack, O. (2008). *Geriatric Career Development Program: An Intergenerational Mentorship Initiative*. Presented at the meeting of the State Society on Aging, Saratoga, NY.

Abbott, N. & Burack, O. (2008). *Geriatric Career Development Program: An Intergenerational Mentorship Initiative*. Presented at the 36th Annual Meeting of the State Society on Aging. Saratoga Springs, NY.

Dolan, S., Unowsky, C. (2007). *Geriatric Career Development Program: An Intergenerational Approach to Healthcare Career Development*. Presented at the Generations United Conference.

Torres, H, Burack, O, & Unowsky, C. (2009). *The Geriatric Career Development Program: Keeping Parents in the Loop*. Presented at the TASE conference, Syracuse, NY.

Unowsky, C. Dolan, S. (2007). *An Intergenerational Approach to Health Care Career Development*. Presented at the AAHSA National Conference.

Unowsky, C., Dolan, S., Abbott, N., Burack, O. (2007). *The Geriatric Career Development Program: An Intergenerational Initiative*. Presented at the State Society on Aging Conference, Albany, NY.

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Unowsky, C. (2008). *Geriatric Career Development Program: An Intergenerational Initiative for Healthcare Career Development*. Presented at the meeting of the New York Southern Area Aging Network, New York, NY.

Unowsky, C. & Burack, O. (2009). *The Geriatric Career Development Program: Jewish Home Lifecare's Intergenerational Response to Nurturing and Training the Next Generation of Long Term Care Professionals*. Webinar presented to the Association of Jewish Aging Services.

Unowsky, C. & Burack, O. (2010). *The Geriatric Career Development (GCD) Program: Combining Research and Practice*. Presented at Research Rounds at Jewish Home Lifecare, New York, NY.

Unowsky, C, Wathen, A., Torres, H., Spiegel, R. (MMCC), Mertens, P. (HOSTOS), & Nieblas, J. (CVS). (2010). *Youth Career Development: Using Partnerships to Leverage Resources for Success*. Presented at the NYCETC Workforce Development Summit & Expo, New York, NY.

Unowsky, C, Felder, G, & Burack, O. (2010) *The Geriatric Career Development (GCD) Program: A Community Based After School Initiative for At-Risk High School Students Pursuing a Health Care Career*. To be presented at the 21st Century Community Learning Centers 2010 Summer Institute.

Paper

Costa, B.W.(2010). *Interest in the Field of Aging among At- Risk High School Students*. MA Thesis for Fordham University School of Social Work.

Updated: May 2010

Home Care Services: Palliative Care Program Evaluation

Note: Collaborative study with the Community Services Department of JHL and Beth Israel's Department of Pain Medicine and Palliative Care

Overview

Palliative care services are focused on helping patients and their families maintain a satisfactory quality of life, manage the burden of illness and reduce the source of suffering throughout the course of a disease. Palliative care often intensifies as death approaches to ensure patients and families that comfort will be a priority, values and decisions will be respected, psychosocial and spiritual needs will be addressed, and practical assistance will be available. While a vast number of community based elderly have chronic, debilitating and progressive incurable illnesses and could greatly benefit from palliative care, providing adequate palliative care to the chronically ill and frail elderly in home and community based care settings is quite challenging. Lack of appropriate education of front line caregivers, failure to incorporate palliative care within routine home visits and insufficient numbers of trained palliative care specialists are all barriers to effective palliative care.

Jewish Home Lifecare's (JHL) Home Care Department along with Beth Israel's Department of Pain Medicine and Palliative Care (DPMPC) developed a palliative care program to bring comprehensive palliative care services into the Bronx and Manhattan home care communities. This program consisted of three components: (1) A palliative care educational training program for home care nurses, social workers, escort-translators, and home health aides. (2) The use of tele-health "Health Buddies" to assist in palliative care case identification and palliative care monitoring¹. (3) The addition of a palliative care specialist dedicated to JHL's Home Care Department.

Study Purpose

The purpose of this study was to examine the impact of the palliative care program described above on (1) nurses, social workers, escort-translators, and home health aides knowledge and attitudes about palliative care; (2) clients' physical and emotional well-being, pain, anxiety, and depression; (3) family caregivers' caregiving related experience, satisfaction with care planning, and perceived physical and psychological symptoms of the elder relative; and (4)

¹ The "Health Buddy" is a small interactive unit placed in patients' homes with a text based monitor that is used to collect information on a daily basis regarding patient symptoms, vital signs, and behaviors by having the patient respond to a series of simple questions that display on the monitor. A palliative care dialogue has been created and added to the "Health Buddies" that are currently being used by JHHLS Home Care clients. Additionally, 70 more "Health Buddies" will be placed in client homes over the next two years with preference given to clients in need of palliative care services.

overall number of programmatic palliative care and hospice referrals, hospital and ER visits, advance directives, and prescription treatments for pain.

Study Measures

Nurses, social workers, escort-translators, and home health aides completed pre and post test instruments to assess the impact of a palliative care training program on their knowledge and attitudes about palliative care. Nurses and social workers received a 32 hour training program while escort-translators and home health aides completed a 4-hour training session.

The pre-test data were collected at the beginning of the first educational session and the post-test was completed at the end of the last educational session (for escort-translators and home health aides the pre and post tests and educational program occurred during one session). For nurses and social workers a second post test survey was completed three months after training.

To explore the impact of the palliative care program on home care clients a chart review examining clients' physical and emotional well-being, pain, anxiety, and depression was conducted at six month intervals. Additionally, the number of community services palliative care and hospice referrals, hospital and ER visits, advance directives, and prescription treatments for pain were tracked.

To examine the impact of the program on family caregivers, caregivers were asked to complete a brief telephone survey about their caregiving experience, satisfaction with care planning, and their relatives' physical and psychological symptoms. These interviews were conducted at baseline and again three months later.

Selected Findings

Staff

1. Nurses and social workers scored significantly higher on the palliative care knowledge post-test than on the pre-test. This significant improvement however was not maintained on the three-month follow-up test.
2. No significant differences in social workers and nurses scores were found across the three time points on any of the attitudinal items. One possible explanation for the lack of change was that subjects' attitudes were supportive of palliative care principles even before the educational sessions.
3. Escort-translators performed significantly better on the palliative care post-test than on the pre-test.

Client Symptoms as Reported by Family Caregiver

1. The most frequently reported physical symptoms of clients were difficulty sleeping, lack of energy and pain. All three symptoms were reported by more than 70% of family caregivers. Lack of appetite and difficulty

concentrating were displayed by at least 50% of clients. The least frequently indicated symptom was nausea reported in a third of the cases.

2. In addition to being the most frequently reported symptoms, pain and lack of energy were also reported as the most distressing symptoms.
3. The most frequently reported psychological symptom displayed by clients was sadness which was reported in 44% of cases.

Health Buddy Usage

In addition to improved palliative care treatment via the palliative care specialist and enhanced team education, one of the goals of this program was to place "Health Buddies" in the homes of clients with potential palliative care needs to better monitor their condition and flag when a palliative care referral is needed. By the end of the study 52% of the clients referred for palliative care had a "Health Buddy" in the home. Of the remaining clients who were referred for palliative care 28% died or were discharged from JHL Home Care Services, 9% refused a "Health Buddy", 7% were deemed inappropriate candidates for a "Health Buddy", and 3% were awaiting assessment to determine if they would be appropriate candidates.

An additional outcome of the study has been the current very successful use of the "Health Buddy" as a source of palliative care referrals.

Project Team: Tom Adamski, MSN, MEd, EdD, Principal Investigator
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Bridget Gallagher, Senior Vice President, MSN, GNP
Athena Kreiser, Senior Project Manager, MHA
Melissa Alfaro, Project Manager
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Amy Horowitz, DSW & Joann Reinhardt, PhD, Consultants

Funded by: Fan Fox & Leslie R. Samuels Foundation
Evaluation= \$27,600

Project Period: 2007-2009

Updated: May 2010

Integrated Palliative Care Nursing Home Program

Background and Significance

In June 2007, the Center to Advance Palliative Care (CAPC) at Mount Sinai, with the support of the Samuels Foundation, analyzed barriers to delivering palliative care in nursing homes across the country. CAPC found inadequate training and education of front line staff and families, high staff turnover, lack of leadership support, lack of palliative care geriatric trained physicians, organizational issues surrounding transitions of care, and inadequate finances. One exemplary model, the Nursing Home Services Integrated Palliative Care model, placed a geriatric nurse practitioner in the home and used an integrated interdisciplinary team approach to symptom management and advance care planning. Although Jewish Home Lifecare has long supported a palliative care program and is one of few long-term care facilities in the country with a dedicated palliative care consult service, the need for palliative care and the number of referrals has the potential to be significantly higher. The current project is implementing a variation of the Nursing Home Services Integrated Palliative Care model using a fellowship-trained palliative care certified geriatrician (hereafter termed "PC geriatrician"), working collaboratively with and drawing on the expertise of CAPC, spearheading a new approach to palliative care within the Jewish Home & Hospital.

Methods

This PC geriatrician is being integrated into each long-term care unit (now referred to as a "community" since JHL has adopted culture change) for several months at a time, and working closely with all members of the primary care team, residents and families. A key component of this role involves informal education of staff, and particularly, role modeling communication with families. Palliative care experts believe that palliative care skills are best taught through modeling, so this method of teaching holds great promise to effect change. The physician has been conducting four to six brief informal education sessions on each unit on key palliative care topics, including pain and symptom management, breaking bad news, and psychosocial support at the end of life. Staff are completing pre- and post-tests to assess changes in their knowledge, attitudes, and satisfaction with palliative care. The evaluation component of this initiative will focus on changes in numbers of palliative care patients, numbers of completed advance directives, numbers of pharmacy orders for symptom management, and family satisfaction with care. The general goal of the project is to educate and empower line staff to recognize the need for palliative care and to implement this approach in all appropriate cases. A secondary goal is to increase family satisfaction with care.

The presence of the PC geriatrician is not a replacement for the palliative care team, nor is she a replacement for the primary care physician on a particular community. While she is assigned to a particular community, she works collaboratively with the primary care physician but will follow and write orders related to symptom management on those residents the teams (including family) feel need a palliative approach. After the PC geriatrician completes her

time on a community, the palliative care team follows and is involved with the palliative care patients on that community. Members of the palliative care team also interact with patients with whom the PC geriatrician is actively involved.

Current Status

The project has been moving along according to schedule, and the PC physician has completed the intervention in the Sutro building and is in progress in the Friedman building. The accompanying pre-and post-tests are also underway. To date, the project has been met with a relatively high degree of enthusiasm from participants.

Project Team: Betty Lim, MD, Project Director
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Audrey Weiner, President - CEO
Diane E. Meier, MD, Director of CAPC and of Hertzberg
Palliative Care Institute

Funded by: Fan Fox and Leslie R. Samuels Foundation
\$300,000

Project Period: 9/2008-9/2011

Updated June 2010

Is There Less Alzheimer's Disease Neuropathology in Medicated Elderly Hypertensives?

Background and Importance

Epidemiological studies over the past two decades indicate that people with hypertension in middle age have a greater risk of developing Alzheimer Disease (AD) later in life. It is clearly advantageous to know if intervention with currently available medications can reduce future brain damage in those with established hypertension. Several clinical research groups have investigated whether treatment of hypertension reduces the risk of later AD, but findings have been inconsistent. We feel that these inconsistencies may have resulted from inherent weaknesses of clinical studies. As noted, the various clinical methods available differ importantly in their ability to identify individuals with dementia. Current clinical tools are also untrustworthy in diagnosing the specific dementia. At the Jewish Home (JHH) we have the advantage of detailed, recorded clinical observations of our residents, and a longstanding autopsy program that has allowed expert neuropathological studies of about 500 of our residents over the past 22 years. This provides us with the opportunity to study the brains of residents who had had hypertension—both treated and untreated—as well as residents who had not had hypertension in their lifetime.

Objectives

Using detailed neuropathological study, to test the hypothesis that use of antihypertensive medication is associated with reduction of AD brain pathology.

Methods

In collaboration with the NIH-supported Alzheimer Study Group at Mount Sinai School of Medicine, we have compiled a large database with detailed information from postmortem studies and clinical charts of about 500 JHH residents. From this database, we excluded those with any dementing neuropathology other than AD, and also those with AD plus other neuropathology. The remaining 291 residents are included in our study. They have been grouped as: (1) those without hypertension during life (No-HTN; n=172); (2) those with clinically recorded hypertension but no record of treatment (HTN-nomed; n=42); and (3) those with clinically recorded hypertension who had received anti-hypertensive medication (HTN-med; n=77). Medical and demographic information for each has been derived from JHH records. Brains have undergone intensive study by a small team of expert neuropathologists, following the protocol established by the

Consortium to Establish a Registry for Alzheimer's Disease (CERAD). This includes detailed counting of neuritic plaques (NP) and neurofibrillary tangles (NFT) in each brain region pertinent to AD. Utilizing one-way analyses of variance (ANOVA), HTN-med, HTN-nomed and No-HTN groups are compared for the frequencies of NP and NFT in multiple regions of the brain.

Sets of 24 neuropathological analyses are assessed using the Holm procedure to control for multiple comparisons. The data are adjusted for several covariates: age of death, gender, presence of an ApoE4 allele and BMI.

Current status

The statistical evaluation of extensive information is continuing. Results to date are of great interest: it appears that medicated hypertensive residents (HTN-med) had significantly less neuropathology than untreated hypertensive (HTN-nomed) or even of non-hypertensives (No-HTN). These findings are strongly suggestive of a protective affect of antihypertensive medication against AD-associated neuropathology.

Project team: Lisa B. Hoffman, Ph.D., Co-principal Investigator
Gerson T. Lesser, M.D., Co-principal Investigator
James Schmeidler, Ph.D., Co-investigator
Vahram Haroutunian, Ph.D., Co-investigator
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Funded by: National Institute on Aging (NIA)
Dextra Baldwin McGonagle Foundation
Joseph E. and Norma G. Saul Foundation

Project Period: 2008-2011

Publications

Hoffman, L.B, Schmeidler, J., Lesser, G. T., Beeri, M. S. Purohit, Haroutunian, V. (2009). Less Alzheimer's disease neuropathology in medicated elderly hypertensives than in non hypertensives. *Neurology*, 72, 1720-26.

Updated: June 2010

Parkinson's Disease in the Elderly and in Aging: Clinical, Genetic, and Neurobiological Substrates

Background and Significance

Aging is the unexplored catalyst for Parkinson's Disease and for Alzheimer's Disease

While the prevalence of Parkinson's disease (PD) in the community residing elderly is impressive (~ 5%) it is even higher in the frail elderly nursing home population (~ 7-10%). Cognitive impairment or dementia often accompanies PD in patients over the age of 70. We refer to these cognitive impairments as Parkinson's Disease Dementia (PDD). A full 75% of PD patients beyond the age of 70 years develop this dementia after 8 years from the disease onset. This extraordinary prevalence is many times greater than that found in age-matched control samples of non-PD patients.

PD is also thought to be closely related to Essential Tremor (ET). There is an increased prevalence of PD for patients previously diagnosed with ET. At the current time the etiology of ET remains a mystery.

We also examine the prevalence of two major types of genetic abnormalities. The first has been characterized in approximately 33% of Ashkenazi Jews with PD and is also identical to the defect found in Gaucher's disease. The second is the class of mutations associated with Parkinson's Disease and have been associated with a relatively high expression of familial PD.

Study Objectives

The primary objectives of this study were and are:

1. To further define the relationship of motor and cognitive impairments in PDD.
2. To further define the relationship of motor and cognitive impairments in ET, ET with Dementia, and in comparison to PD and PDD.
3. To further study the prevalence of two major types of genetic abnormalities. The first is the heterozygous defect which is identical to the defect found in carriers of the Gaucher's genetic defect. The second is the class of mutations associated with Parkin. This is being done with our collaborators at the Mount Sinai Department of Genetics and Genomic Sciences.
4. To further study the post-mortem neuropathological correlates from study subjects who have donated their brains, independent of participation in this study, as part of the JHH Anatomical Tissue Gift Program. This is being done with our collaborators at the Mount Sinai Department of Neuropathology.

Method

Individuals are recruited for study through the JHL Tissue Donation Program which, through the generous donation of family members, consists of 522 brains. Thirteen percent of these brains have been diagnosed post-mortem with Parkinson's disease.

Another source of recruitment is via the Movement Disorders Clinic. Residents attending the clinic are seen by a neurologist affiliated with the Movement Disorders Center at the Mount Sinai School of Medicine. These clinics are held monthly at all three campuses and at this time we have enrolled over 121 residents who have been studied longitudinally. In addition, 764 residents have been studied as part of other longitudinal studies to examine the relationship between cognition and motor impairment in the nursing home long-term care population.

We have also examined a subset of our clinical cases with either familial PD or Essential Tremor. These residents and family members have been enrolled into a genetics study examining the prevalence of the Gaucher genetic defect and Parkin Mutations.

Select Findings to Date

Neuropathological Studies (Selected)

1. *Parkinson's Disease Dementia (PDD)*: The presence of Lewy bodies (a protein mass that displaces normal cell components in nerve cells in the brain) is currently viewed as central to the presence of PDD when Alzheimer's disease or vascular disease are not present. In a study of 16 brains we observed that 19% did not exhibit the expected distribution of Lewy bodies to explain the presence of dementia suggesting a different etiology for dementia in PDD.
2. *Depression in PD*: While depression is observed in 30%-40% of PD patients the origin is still not known. We examined multiple brain sites in 11 individuals diagnosed with clinical depression during their lifespan as compared to 9 subjects without a history of depression. We observed greater pathology in the depressed patients brains in the locus coeruleus and the dorsal vagus nerve. These regions are considered responsible for the production of hormones called catecholamines as contrasted to the seroternergic hormones thought to be related to the presence of depression caused by physiological changes associated with other diseases.

Resident Studies (Selected)

1. *Withdrawal of PD Drugs in Advanced Parkinsonism*: We withdrew PD related medications (Sinemet) from 11 residents with both advanced Parkinsonism and dementia who seemed likely not be benefiting from the medication.. We observed no significant changes in cognitive, behavioral, and motor function after withdrawal and believe that for these patients it may be beneficial to withdraw these medications.
2. *Prevalence of PD/ET*: We conducted a prevalence study of our nursing home residents and observed 21% of residents have a movement disorder. Of these residents Parkinsonism (7.1%) and Essential Tremor (8.8%) were the most prevalent
3. *Dementia Screening*: We assessed the accuracy of items on the Mini-Mental State Examination to differentiate frail elderly with dementia as

compared to those without dementia. In an examination of 350 residents we observed that 2 Orientation items were as accurate as the entire 20 item instrument.

4. *Cambridge Cognitive Examination (CAMCOG)*: We assessed the use of the CAMCOG in 50 residents to determine the ability of the instrument to detect deficits in specific cognitive domains in our population. We found that the total CAMCOG score was lower than seen in previously reported normative data with the Control group having the highest score (80). This means that within our population individuals without dementia show greater overall deficits in cognition via CAMCOG testing. This was reflected by scores for Remote Memory, Abstract Thinking, and Perception related test items which failed to differentiate individuals with and without dementia. This highlights both the sensitivity of the CAMCOG test and the presence of subtle cognitive impairment in many otherwise "normal" appearing frail elderly persons.

Project Team

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Mt. Sinai: L. Edelman PhD, M. Grace PhD, V. Haroutunian PhD.
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Funded by: Leir Charitable Foundations

Project Period: 2001-2009

Publications

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Presentations

- A Diminished role for the Lewy Body in Parkinson's Disease Dementia. American Medical Directors Association Annual Meeting 2008, Salt Lake City, Utah.
- Glucocerebrosidase (GBA) Gene Mutations are an Important Risk Factor for Lewy Body Inclusions in Alzheimer's Disease patients of Ashkenazi Jewish Ancestry. 12th International meeting of the Parkinson's Disease and Movement Disorder Society; 2008 Salt Lake City, Utah.
- Assessing the Frail Elderly in Long-Term Care: A Quantitative Evaluation on the Utility of the CAMCOG. 61st Annual Scientific Meeting of the Gerontological Society of America. November 2008.
- The Cognitive Performance Scale: a Quantitative Comparison with the Clinical Dementia Rating in the Long-Term Care Setting. - International Neuropsychological Society Annual Meeting 2008 Hawaii.
- Optimizing Clinical Outcomes in Residents with Parkinson's Disease. American Medical Directors Association annual symposium in Dallas, Texas March 2006.
- Parkinson's Disease Dementia as a distinct neurobiological entity: insights from postmortem human brains. American Medical Directors Association annual symposium in Dallas, Texas March 2006.
- A Memory Intervention for LTC Residents at Risk for Dementia, American Medical Directors Association, 29th Annual Symposium, Dallas, TX, March 2006.

Parkinson's Disease and Movement Disorders: New Approaches to Assessment and Treatment, American Medical Directors Association, 28th Annual Symposium, New Orleans, LA, March 2005.

Updated: July 2009

Prevalence and Consequences of Depression and Vision Impairment among Older Residents Newly Admitted to Nursing Homes

Background and Significance

Older adults who enter nursing homes for either long-term or subacute care typically have multiple co-morbidities that influence the course and outcomes of care. Two common co-morbidities that are often under-diagnosed and under-treated are vision impairment and depression.

Depression: There is a substantial body of research that suggests that depression acts as a barrier to engagement in rehabilitation programs and leads to poorer rehabilitation outcomes in both short and long-term follow-ups. Furthermore, depression is associated with poorer quality of life, higher disability, increased likelihood of falls, poorer medical status, and higher utilization of health care services. Although clinical experience has suggested that there are high rates of depression among residents at Jewish Home Lifecare, there has not been any systematic assessment of the prevalence of either subthreshold or major depressive disorders among subacute or long-term care residents, nor of the effects of depression on care outcomes in their rehabilitation program.

Vision impairment: Age-related vision loss is a prevalent but often overlooked problem in later life. While it has been estimated that approximately 20% of older adults in the general community self-report some vision problem, recent data indicate that between one-third and one-half of all nursing home residents have impaired vision, due not only to age-related eye diseases (macular degeneration, cataract, glaucoma, and diabetic retinopathy), but also to uncorrected refraction error and/or untreated disease. Vision loss has been shown to be strongly associated with both greater functional disability and higher levels of depressive symptomatology in both community and long-term care populations. Clinical experience also suggests that vision impairment complicates the rehabilitation care for comorbid conditions, placing older adults who reside in residential care at greater risk of falls and injuries. There has been very little systematic research examining the impact of vision impairment on care outcomes for older adults in either subacute or long-term care.

Study Objectives

The primary objectives of this pilot study are:

1. To document the prevalence and correlates of vision impairment and depression among older adults newly admitted to subacute and long-term care
2. To identify the effects of these conditions on rehabilitation service use and outcomes, functional ability, incidence of falls and injuries, and length of stay and discharge status.

Study data will also be used to compare the efficacy of two cognitive screening

instruments with visually impaired older adults: the Mini-Mental Status Examination (MMSE), which includes vision dependent items, and the modified Telephone Interview for Cognitive Status (TIC-M), which does not.

Methods

A total of 200 adults age 55 or older will be recruited: 100 in long-term care and 100 in subacute care. Participants will have been recently admitted to Jewish Home Lifecare and have been assessed by their primary care physician as being capable of answering simple questions about functional vision and mood.

In-person interviews will be conducted and collect data on the participant's functional vision, vision status, experience of pain, and symptoms of depression, as well as the MMSE and TIC-M, followed by a brief visual assessment of acuity and contrast sensitivity. In addition to the in-person interview, data will be collected from the participant's medical record in time in order to identify the consequences of vision impairment and depression on care, controlling for co-morbidities.

Current Status

Recruitment of participants in subacute care (n=92) and long-term care (n=13) is in progress. Collection of medical record data and preliminary review and analysis of interview data is also in progress.

Preliminary findings

The Subacute Experience (n=78)

- Vision impairment and depression effect significant subgroups:
 - 12% have low vision or poorer vision (20/70 or worse); 28% have worse than 20/40
 - About one-third (32%) have clinically significant depressive symptoms
- Greater vision impairment is associated with:
 - Living alone
 - Lower Education
 - Poorer Cognitive status on the TICS
 - Greater dependency on OT evaluation at admission (visual acuity)
 - Lower dependency on PT evaluation at admission (vision self-report)
 - Falls and Hospitalization during subacute stay (trends)
- Greater depression is associated with:
 - Not receiving enough emotional support from family and friends.
 - Greater Pain
 - Greater Loss of Hearing
 - Less Speech Therapy

There is limited evidence for effect of vision or depression on discharge status and change in functioning. However, patients who are visually impaired or depressed generally have worse functional status at both admission and discharge.

Project Team: Amy Horowitz, DSW Principal Investigator
Joann P. Reinhardt, PhD, Co-Investigator
Kathrin Boerner, PhD, Co-Investigator
Jasmine Rodriguez, B.A., Research Coordinator
Serena Byrd, B.S., Research Assistant

Funded by: Jewish Guild for the Blind
Guild Center for Research on Vision and Aging at JHL

Project Period: 2008-2011

Presentations

Horowitz, A., Reinhardt, J.P., & Morse, A.R. (November 2009). *Prevalence and consequences of vision impairment and depression among older adults in subacute rehabilitation*. Poster presented at the 62nd Annual Scientific Meeting of The Gerontological Society of America. Atlanta, Georgia.

Horowitz, A., Reinhardt, J.P., & Rodriguez, J. (March, 2010). *Depression among older adults in subacute rehabilitation: Prevalence and consequences*. Paper presented at the ASA Aging in America Conference. Chicago, Illinois.

Updated: April 2010

A prospective study of symptoms, function, and medication use during acute illness in nursing home residents

Overview

Nursing home residents are at high risk for developing acute illnesses. Compared with community dwelling adults, nursing home residents are often more frail, prone to multiple medical problems and symptoms, and are at higher risk for adverse outcomes from acute illnesses. In addition, because of polypharmacy and the high burden of chronic disease, nursing home residents are particularly vulnerable to disruptions in transitions of care such as medication interruptions in the setting of acute illness. In order to better estimate the effect of acute illness on nursing home residents, we have initiated a prospective cohort study which will allow us to observe patterns of acute illnesses and the consequence of acute illnesses, including symptoms and function, among nursing home residents. We also aim to examine the patterns of medication interruption, and identify patient, provider and environmental factors that influence continuity of medication prescribing at different points of care transition.

Methods

This is a prospective cohort of nursing home residents residing in two nursing homes in a metropolitan area—Jewish Home Lifecare, New York, NY and the James J. Peters VA Community Living Center in Bronx, NY. Residents are eligible to be enrolled in the study if they are receiving opioids, antidepressants, or antipsychotics on a routine basis for a duration of time considered to be a minimal therapeutic trial. Baseline characteristics including age, gender, race, and comorbid conditions are recorded. Participants are followed longitudinally for a period of 3 years. We record acute illness incidence and characteristics, patterns of maintenance and interruption of the target medications, and measure symptoms including depression, pain, withdrawal symptoms, and function using standardized scales.

Status

76 nursing home residents have been followed for a median of 666 days to date. At baseline, mean age of residents was 74.4 (\pm 11.9); 31.9% were female; 59% were white. The most common chronic conditions were dementia (41%), depression (38%), congestive heart failure (25%) and chronic obstructive lung disease (27%). Mean pain score was 4.7 (\pm 3.6) on a scale of 0 to 10; Geriatric Depression Scale (GDS-15) score was 5.2 (\pm 4.4; note: a GDS-15 score of 5-9 indicates possible depression). During follow up, 138 acute illness episodes were identified, for an incidence of 1.5 (SD 2.0) episodes per resident per year; 74% were managed in the nursing home and 26% managed in the acute care setting. In our planned analysis, we will further estimate the effect of the use and interruption of target medications on withdrawal and relapse symptoms and illness outcomes.

Project Team: Kenneth Boockvar, MD, MS, Principal Investigator
William Hung, MD, MPH, Co-Investigator
Jessica Singleton, BA, Research Assistant
Jennifer Kwak, BA, Research Assistant

Funded by: Department of Veterans Affairs, Health Services Research and Development Service

Project Period: 2006-2010

Publications

Liu, S, and Boockvar, KS. Continuity of care for pain, depression, and psychosis for older adults. Yale University School of Medicine doctoral thesis (2008).

Hung, W, Liu, S, and Boockvar, KS. A prospective study of symptoms, function, and medication use during acute illness in nursing home residents: design, rationale and cohort description. BMC Geriatrics (in press).

Presentations

Suchanek, M and Boockvar, KS. (May 2006) Discontinuation of standing opioid orders in individuals transferred from nursing home to hospital. Poster presented at the annual meeting of the American Geriatrics Society, Chicago, IL.

Updated June 2010

Relationships of Serum Lipids to Plaque and Tangle Frequency in the Very Old

Background and Importance

Despite many investigations, the role of serum lipids (total cholesterol = TC; low-density cholesterol = LDL; high-density cholesterol = HDL) in Alzheimer's disease (AD) of the elderly has not been established. This is unfortunate, since manipulation of serum lipids could be a means of influencing the onset and course of this progressive condition. Several reports, including those from our research group, noted positive relationships of serum lipids with AD or dementia or cognitive loss in very old populations. Higher TC and LDL have also been associated with more rapid cognitive decline in those who already have AD. However, many studies find no such associations and some even report negative associations of lipids with AD or dementia.

Aside from obvious demographic differences among the observed cohorts, several reasons for such discrepancies can be posited. For those studies that are clinically based (the large majority), identification of demented individuals within a population can vary widely, depending upon the psychometric tools employed; in addition, clinical methods often fail to distinguish the various dementing conditions from one another (e.g., AD vs vascular vs Lewy body dementias). These problems are evidenced by frequent clinical-pathological disagreement as to the presence and type of a dementing process. Such methodological limitations, individually and collectively, often lead to errors in assigning dementia presence and dementia type for subjects within a clinically observed cohort. For the very few studies that have used neuropathological tools to establish the presence and classification of specific dementia processes, other methodological variations may have affected outcomes and reduced comparability. Two pathologically-based studies (one from our group), using Consortium to Establish a Registry for Alzheimer's Disease (CERAD) neuropathological criteria for the definition of AD and other dementing processes, report positive relationships of TC and LDL with AD, and no relationships of these lipids with dementing pathology other than AD. Other investigators, using different pathological criteria and/or different brain sites or different covariates, report somewhat dissimilar findings.

Most assumptions, definitions and procedural problems of these studies can be avoided by comparing serum lipids with the basic neuropathological "markers" for AD - plaques and tangles. Only one prior study has examined serum lipid values directly with plaque and tangle prevalence, and this was carried out in a community-based, all male population with a very low frequency of dementia. We are investigating a large nursing home (NH) population and comparing the relationships of serum lipids directly with neuropathological evaluations of these hallmarks of AD in the neocortex and the allocortex. [Multiple references available]

Objectives

To explore the role of cholesterol in Alzheimer dementia by establishing the association(s) of serum lipids directly with the basic (and original) markers of AD, brain plaques and tangles.

Methods

In collaboration with members of the NIH sponsored Alzheimer's Study Group (at Mount Sinai School of Medicine Departments of Pathology and Psychiatry), we have compiled a large, ongoing database over a number of years from the postmortem studies and clinical charts of residents at JHL. The database now includes information from about 500 autopsied JHL residents. [This pathological database is a rare resource, and shares information with research laboratories worldwide]. For over 350 of these autopsied JHL residents we also have information from JHL records as to serum lipids at admission as well as demographic data as to ages at admission and at death, length of stay, race, gender, and comorbidities. We have analyzed tissue of each resident for apoE genotype and also have the detailed neuropathological evaluations collected by leading experts in this field. The neuropathological studies include detailed, time-consuming observation (including actual counting) of the numbers of plaques and tangles in every area of the brain pertinent to AD.

Current Status

Extensive statistical analyses of the above information have been proceeding for some months, and are nearing completion. To this time, we appear to have established statistically significant positive correlations of serum total and LDL cholesterol with Alzheimer type plaques in all pertinent areas of the brain. The findings are strengthened by the relatively large sample size, by the high prevalence of dementia in this population, and by the expert, detailed neuropathological methods.

Project team:

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Leslie S. Libow, M.D., Co-Principal Investigator
Vahram Haroutunian, Ph.D., Co-investigator
James Schmeidler, Ph.D., Co-investigator
Michal Schnaider Beerli, Ph.D., Co-investigator
Dushyant Purohit, M.D., Co-investigator

Funded by:

Dextra Baldwin McGonagle Foundation
Joseph E. and Norma G. Saul Foundation.
National Institute for Mental Health (NIMH)
\$150,000

Project Period: 2008-2011

Publications

Lesser, G. T., Haroutunian, V., Purohi, D. P., Schnaider Beerli, M., Schmeidler, J., Honkanen, L., Neufeld, R., & Libow, L. S. (2009). Serum lipids are related to Alzheimer's pathology in nursing home residents. *Dementia and Geriatric Cognitive Disorders*, 27(1), 42-9.

Updated: June 2010

Treating Subthreshold Depression in Older Adults in Community-Based Rehabilitation

Background and Significance

Depression is a major health problem and is strongly associated with disability among the elderly. This relationship is particularly evident among older adults with age-related vision impairments, one of the most common and potentially disabling conditions of later life, with as many as one-third estimated to experience depression. The majority of these elders suffer from a subthreshold depression, defined as clinically significant depressive symptomatology that does not meet diagnostic criteria for a major depressive disorder. However, recent research has clearly indicated that the impact of a subthreshold depression on quality of life is similar to that of a major depression. These negative impacts, coupled with the growing evidence regarding the negative consequences of depression for rehabilitation utilization and outcomes, clearly indicate that the development of evidence-based treatments for depression incorporated within rehabilitation settings is an important public health need in order to improve life quality and reduce excess disability among older people.

One of the most promising interventions for depression is Problem-Solving Treatment for Primary Care (PST). PST is a cognitive-behavioral therapy that treats depression by teaching patients how to systemically solve psychosocial problems. The social problem-solving process consists of a general motivational component (problem orientation) and a set of specific goal-directed skills (problem definition, generation of alternative solutions, decision making, and solution implementation). While there has been a good deal of evidence supporting the effectiveness of PST in treating major depression in primary care settings, there has been virtually no work done examining the feasibility of integrating PST in community-based rehabilitation settings for older adults, nor addressing its potential treatment effects on both depressive symptomatology and rehabilitation outcomes.

Study Objectives

The goal of this intervention development study is to evaluate the feasibility and tolerability of PST with visually disabled elders to treat subthreshold depression with the context of community-based rehabilitation. Specific objectives include:

1. To demonstrate PST implementation fidelity including recruitment, acceptance, and adherence to the protocol.
2. To identify the potential of PST for older visually impaired adults with subthreshold depression relative to (a) primary outcomes of depression remission and clinically significant reductions in depressive symptoms, and (b) secondary outcomes of retention in rehabilitation programs, extent and type of services received, and improvement in functional ability in activities of daily living.

Methods

Sixty participants, age 60 years and older, with subthreshold depression (minor depression and/or Hamilton Depression Rating Scale score of 10 or greater) will be recruited and will be randomized to treatment and comparison groups. Treatment participants will receive six one-hour sessions of PST (two prior to the commencement of rehabilitation services), and usual rehab care (excluding any mental health services or referrals). Social Contact comparison group participants will receive usual care; i.e., rehabilitation services that may include non-specific counseling and/or referrals to mental health services. They will also receive six weekly "friendly visitor" telephone calls by volunteers to control for attention. Assessments will occur at pre-assignment, at week 11 (following PST treatment) and 3 months post treatment for longer term effects. Treatment fidelity will be assessed, including systematic documentation and evaluation of the recruitment process, methods to reduce attrition, provider training, treatment delivery and receipt, and enactment of treatment skills.

Current Status

Participant recruitment, intervention, and data collection is in progress.

Project Staff: Amy Horowitz, DSW, Principal Investigator
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Ami Tint, B.A., Research Assistant
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Luba Popivker, B.A. Research Assistant
Renee Rodriguez, MSW, PST Therapist

Funded by: National Institute on Mental Health (NIMH)
\$545,000

Project Period: 2008-2011

Presentations

Horowitz, A., & Reinhardt, J.P. (2009, November). Problem Solving Treatment for Older Adults with Subthreshold Depression in Vision Rehabilitation. Paper presented at the Annual Scientific Meeting of the Gerontological Society of America. Atlanta Georgia November, 2009.

Updated: April 2010

Treating Subthreshold Depression in Nursing Home Residents with Serious Chronic Illness

Background and Significance

There is extensive evidence documenting high levels of comorbidity between physical and depressive illness in later life. Across a variety of chronic conditions, depression negatively affects quality of life, as well as hindering the effectiveness of efforts to palliate pain and other manifestations of advanced disease. Although there is no debate that treatment for depression is a critical component of palliative care, depression remains one of the most unrecognized and untreated conditions among long term care (LTC) residents. Recent research in geriatric depression has called attention to the prevalence and consequences of clinically significant depressive symptomatology that does not meet diagnostic criteria for major depression, referred to as subthreshold depression. Prior research has consistently indicated that subthreshold syndromes can have equally negative consequences as major depressive disorders for health, functioning, and life quality among older adults.

Problem-Solving therapy (PST) is one of the key interventions currently used to address depression in older adults. PST is a cognitive-behavioral therapy approach that treats depression by teaching patients how to systematically solve psychosocial problems. Problem-solving interventions have been found to be as or more effective in treating major depression in middle-aged and older adults compared to medication, psychoeducational interventions, and/or placebo. Although pilot interventions incorporating problem solving skills have been implemented in LTC facilities, no prior research has tested the application of this manualized psychotherapeutic technique within long-term nursing home care.

Study Objectives

The goal of this pilot study is to evaluate the feasibility and tolerability of using PST to treat subthreshold depression in older, nursing home residents with serious illness (CHF, COPD, stroke) and intact or mildly impaired cognitive status. These data will inform the development of a large-scale clinical trial to test the effect of this nonpharmacological treatment for subthreshold depression and symptom distress in this complex medically ill population. Specific objectives include:

1. To demonstrate PST implementation fidelity (recruitment, acceptance, and adherence to the protocol) within a nursing home setting.
2. To identify the potential of PST for nursing home residents with serious chronic illness and subthreshold depression relative to: (a) Primary outcomes of depression remission and clinically significant reductions in depressive symptoms; and (b) Secondary outcomes of symptom distress (pain, fatigue).

3. To estimate the effect size of the PST intervention compared to Usual Care with Social Contact for primary and secondary outcomes.

Methods

Forty participants, age 65 years and older, with subthreshold depression (minor depression and/or Hamilton Depression Rating Scale score of 10 or greater) will be recruited and randomized to treatment and comparison groups. Treatment participants will receive six, one-hour sessions of PST. To control for the attention associated with PST intervention, comparison group participants will receive 6 consecutive 20 minute sessions of social contact occurring over the same 6-week period as the treatment group provided by social work interns. Assessments will occur at pre-assignment, at week 7 (following PST treatment) and 2 months post treatment for longer term effects. Treatment fidelity will be assessed, including systematic documentation and evaluation of the recruitment process, methods to reduce attrition, provider training, treatment delivery and receipt, and enactment of treatment skills.

Current Status

The project is in the start-up phase.

Project Staff: Joann P. Reinhardt, PhD, Principal Investigator
Amy Horowitz, DSW, Co-Investigator
Jasmine Rodriguez, B.A., Research Associate
Renee Rodriguez, MSW, PST Therapist

Funded by: National Institute on Aging (NIA); Mount Sinai School of Medicine Claude D. Pepper Center Award; \$180,000

Project Period: 2010-2012

Updated: June 2010