Moving Forward: Evaluating a Curriculum for Managing Responsive Behaviors in a Geriatric Psychiatry Inpatient Population

Ed Black, PhD, Jennifer Speziale, RN, MPH, Robin Coatsworth-Puspoky, RN, MScN, Tom Ross, BA, Tony O'Regan, RN, BSc, MSc, Cert Ed
Moving Forward: Evaluating a Curriculum for Managing Responsive Behaviors in a Geriatric Psychiatry Inpatient Population

Jennifer Speziale, RN, MPH,2 Ed Black, PhD,1,3 Robin Coatsworth-Puspoky, RN, MScN,4 Tom Ross, BA,3 and Tony O’Regan, RN, BSc, MSc, Cert Ed3

Purpose: The Gentle Persuasive Approaches (GPA) curriculum was developed as an adjunct to other educational initiatives that were part of Ontario, Canada’s Alzheimer Strategy. GPA emphasizes that an individual’s unique personal history has a direct application to the interpretation of and response to their behavior. It incorporates strategies into geriatric patient care to assist staff to respond effectively to verbal and physical expressions of need. Design and Methods: A pre- and postintervention approach was used to evaluate the effectiveness of GPA: (a) Staff Satisfaction Surveys immediately after GPA training and after 3 months, (b) risk event profiling to monitor aggressive behavior rates, (c) occupational health and safety records pre- and post-GPA training, and (d) Residential Assessment Instrument-Mental Health indicators pre- and post-GPA training. Results: Surveys revealed that GPA training significantly improved staff’s response to challenging behaviors, understanding of how brain changes impact behavior, and learning strategies to respond to challenging behaviors. Specific body containment techniques were less employed on geriatric patients who experience responsive behaviors. Pre- and postphysical aggression rates declined over the 6-month period following GPA training. The training did not appear to impact occupational injury rates. Implications: GPA appears to be a useful and positive approach for providing care to an inpatient geriatric psychiatry population. Specific body containment techniques may be less useful when employed with patients who have responsive behaviors. The program evaluation suggests that application of the GPA curriculum may be extended to patients with diagnoses other than dementia.

Key Words: Geriatric psychiatry, Challenging behaviors, Responsive behaviors, Gentle persuasive approaches, Dementia care

The term responsive behaviors has emerged in recent literature on dementia care to describe a set of reactions that arise from environmental stress or unmet needs (Dupuis & Luh, 2005). It has been adopted as a result of a “social, psychological, and phenomenological model” (Cohen-Mansfield & Taylor, 1998) that aims to understand the meaning behind patients’ behaviors rather than focusing...
on their neuropathology (Dupuis & Luh). Responsive behaviors are often challenging or disruptive and can be a considerable source of distress for patients, families, and their caregivers.

Research has revealed that most nursing home care is provided by individuals who lack the formal education and training needed to care for individuals with dementia (Kennedy, Covington, Evans, & Williams, 2000). Consequently, it is important to establish appropriate models of care to help staff understand, accommodate, and manage responsive behaviors (Wiersman & Dupuis, 2007).

In an effort to improve the quality of care in the Geriatric Psychiatry Program (GPP) at Regional Mental Health Care London, the program evaluation team obtained funding from the St. Joseph’s Health Care Foundation to train coaches and staff to implement the Gentle Persuasive Approaches (GPA) curriculum. This curriculum was developed as an adjunct to other educational initiatives that were part of Ontario’s Alzheimer Strategy for persons with dementia (Ontario Ministry of Health and Long-Term Care, 1999). The GPA curriculum emphasizes that the unique personal histories of individuals have direct application to the interpretation of, and response to, their behaviors (Kennedy et al., 2000). The program incorporates point-of-care and person-centered strategies into patient care to help staff respond respectfully, effectively, and safely to verbal and physical expressions of an individual’s needs (Allcroft & Loiselle, 2005).

A database literature search using the terms gentle persuasive approaches in dementia care and responsive behaviors (PubMed/Medline, PsycINFO, EMBASE, CINAHL, and EBM Reviews/Cochrane between 1995 and 2008) did not reveal any published scientific papers about the effectiveness of GPA and its relationship to patient care. However, a 2005 GPA evaluation report has indicated a statistically significant increase in self-perceived competency among staff who received the training (Martin & Dupuis, 2005). A repeated measure ANOVA revealed significant increases in self-perceived competencies that were sustainable 6 weeks post-training. Staff reported an increased competence to identify triggers of responsive behaviors, communicate effectively with patients, identify appropriate and respectful responses to behavior, and de-escalate challenging behaviors (Alzheimer Society Grey-Bruce, 2006). These results suggest that the GPA curriculum may help validate and augment the attitudes and values generated toward responsive behaviors, although one exposure to the curriculum may not be enough to permanently change these attitudes and values (Ontario Long Term Care Association, 2006).

Given the lack of evidence-based literature available on the GPA curriculum, an additional database search (PubMed/CINAHL/PsychINFO between 1995 and 2008) was conducted to identify evaluations of other educational programs designed for dementia care workers. Nineteen studies were found, and the programs described ranged in length and teaching method and focused on a wide variety of topics related to clinical dementia care, including the prevention of physical aggression and the development of communication skills (Burgio et al., 2002; Cohen-Mansfield, Werner, & Culpepper, 1997; Edberg & Hallberg, 2001; Ellis, 2008; Hagen & Sayers, 1995; Loveday, 2001; Magai, Cohen, & Gomberg, 2002; Maxfield, Lewis, & Cannon, 1996; McAiney et al., 2006; McCallion, Toseland, Lacey, & Banks, 1999; Moniz-Cook et al., 1998; Ousset, Sorel, Cazard, & Vellas, 2003; Palmer & Withee, 1996; Phillips & Baldwin, 1997; Ripich, Wykle, & Niles, 1995; Schoenfeld et al., 1999; Smith et al., 1998; Stevens et al., 1998; Wilkinson, 2001). Program evaluations related to dementia care in Ontario included the Physical, Intellectual, Emotional, Capabilities, Environment, Social (PIECES) program, an initiative focused on developing the knowledge and skills of frontline workers in long-term care (LTC) settings (McAiney et al.). Staff who underwent PIECES training reported an increased ability to recognize and respond to difficult/challenging behaviors and the ability to use clinically relevant assessment tools. The study by Hagen and Sayers evaluated an in-service training program aimed at reducing incidents of physical aggression in LTC homes. The authors of this study reported a 50% reduction in physical aggression rates among elderly patients post-training. Similarly, a study conducted by Ousset and colleagues used the Neuropsychiatric Inventory to assess patients’ behavioral disturbances and provide staff with a more specific training program to address patient needs. The results showed a decrease in the frequency, severity, and related distress of behavioral symptoms.

Although other programs exist, the GPA curriculum was selected due to its unique emphasis on person-centered care. Previous approaches to challenging behaviors at this facility included the mandatory physical containment techniques of the Prevention and Intervention of Crisis Situations (PICS) program, an approach developed by the Organizational Development and Learning Services
of St. Joseph’s Health Care London. However, staff were concerned that this approach did not meet the needs of a fragile older adult population.

The GPA curriculum was grounded on the principles of person-centered care (Kitwood, 1997, 1998) and the need-driven dementia-compromised behavior model (Kolanowski, 1999; Richards, Lambert, & Beck, 2000). Key curricular points provide caregivers with an opportunity to participate in a dialogue wherein they uncover significant life events and preferences that give meaning to the lives of the older adults in their care. In addition, the behaviors of residents that participants might traditionally view as “disruptive” are interpreted as the result of a series of unmet individual physical, psychological, spiritual, and/or cultural needs. In particular, behaviors typically labeled as “aggressive” are reframed so that caregivers interpret them as being self-protective and an attempt to re-exert control over a life that has become unfamiliar and frightening (Talerico & Evans, 2000). Overall, the primary framework of the GPA curriculum is the view of the older adult with dementia as a unique individual who is striving to relate in the world in an attempt to make needs known, and thus, the corresponding behaviors should be examined for themes that help to identify those unmet needs that are at the root. Interventions should then be tailored to meet those identified needs. This curriculum was developed as an adjunct to other educational initiatives that were part of the Ontario’s Alzheimer Strategy program for persons with dementia. The GPA curriculum emphasizes that an individual’s unique personal history has a direct application to the interpretation of, and response to, their behavior (Kennedy et al., 2000).

The GPA curriculum incorporates point-of-care and person-centered strategies into patient care to help staff respond respectfully, effectively, and safely to verbal and physical expressions of an individual’s needs (Allcroft & Loiselle, 2005) and is consistent with the philosophy of care of the GPP. The review of the literature revealed a lack of evidenced-based literature about the effectiveness of this program and its relationship to patient care. Thus, the purpose of this study was to evaluate the effectiveness of the GPA curriculum.

The unique contributions of this study were the application of the curriculum to an inpatient psychogeriatric population with diagnoses including schizophrenia, mood disorder, dementia, or a combination. The training included both professional and support staff and a 3-month postevaluation. The evaluation was used to assess the impact of training on staff knowledge and competency and also on patient risk events, occupational health incidents, and Resident Assessment Instrument–Mental Health (RAI-MH) measures (Hirdes et al., 2001).

**Methods**

**Facility**

The GPP at St. Joseph’s Health Care London provides tertiary treatment for older adults with serious mental illness (108-bed inpatient program with an occupancy rate of 75%). It consists of three units identified by complexity of care and mental health needs, including dementia, psychosis, and affective disorders (24%, 29%, and 47%, respectively). The average age of the patient population is 75 years old, with ages ranging from 50 to 94 years, and females comprising 56% of the population. The GPP treats people who experience behavioral and mental health problems associated with cognitive impairment, late onset psychiatric illness, and chronic psychiatric disorders with medical and functional complications. Discharge planning often involves patients being transitioned into an LTC environment.

**Participants**

The literature recommends training a critical mass of staff in order to support change in practice (Rogers, 1995). Certified GPA Master Instructors delivered the curriculum to 99 participants representing approximately 71% of the full-time geriatric program staff (n = 140) and 56% of the nursing staff. Due to financial constraints, it was not possible to train all nursing staff during the 3-month implementation period. Clinical and allied health care staff were assigned to the training sessions as their schedules would accommodate and program managers collaborated to support training for the nonclinical group. The trainees included individuals from the following departments: Food Services, Environmental Services, Psychology, Social Work, Spiritual Care, Occupational Therapy, Therapeutic Recreation, Nursing, Administration, and Clerical Staff (Figure 1).

**GPA Curriculum**

The 7.5-hr GPA training course was offered through multiple sessions that took place over a
3-month period. Course content included four modules that focused on the principles of person-centered care; the impact of dementia on the brain; interpersonal, environmental, and communication strategies for responding to escalating behaviors; and an overview of body containment principles (Martin & Dupuis, 2005).

Overall, the GPA curriculum was designed to educate staff on how to respond respectfully, confidently, and skillfully to responsive behaviors associated with dementia. The objectives of the program are to understand that a patient with dementia is a unique human being who responds emotionally to any stimuli; explain the relationship between the disease process and the individual’s behavioral response from a holistic perspective; describe emotional, environmental, and interpersonal aspects of communicating with persons with dementia; choose strategies that serve to diffuse challenging behaviors rather than escalating them; and demonstrate suitable and respectful protective techniques to use in response to expressions of need (Martin & Dupuis, 2005).

Measures

A pre- and postintervention approach evaluated the effectiveness of the GPA curriculum in the GPP. A seven-item Staff Satisfaction with the Curriculum Tool was provided immediately after GPA training (Survey 1) and 3 months post-GPA training (Survey 2). Both surveys employed a 5-point Likert-type scale (1 = I do not agree to 5 = I strongly agree) to evaluate course content, course length, practical applicability, class size, training location, quality of the facilitator, and accessibility of course content. Course evaluation questions related to the quality of the presentation were not repeated in Survey 2. Additional questions were added to Survey 2 to identify participants’ perceptions on how they would be able to best utilize GPA principles in their clinical practice. Both surveys included requests for any additional comments and how participants would use GPA in their work environment.

A well-established electronic risk event profiling system was used to monitor the average number of incidents of physical aggression among residents 3 months pre- and post-GPA training. Physical aggression rates per thousand bed days (PTBD = events per thousand bed days) were calculated on a monthly basis as part of a routine risk management review process. The ratios of physical aggression PTBD were corrected according to bed occupancy rates (Black, Ross, Khatamianfar, & Behzadian, 2008).

Occupational health and safety records were reviewed 3 months pre- and post-GPA training, and occupational injury rates and time lost statistics were averaged and compared.

The RAI-MH case mix index (CMI) was used to examine patient acuity levels 3 months pre- and post-GPA training (Bjorkgren, Fries, Hakkinen, & Brommels, 2004). The RAI-MH is a mandated, comprehensive, and standardized instrument used to evaluate the needs, strengths, and preferences of adult psychiatric patients living in institutional settings (Hirdes et al., 2001). This assessment is completed upon patient admission and repeated every 3 months until discharge. The CMI value represents the average cost of care within a group compared to average patient in the population (Gibbons et al., 2008; Hornbrook, 1982). The CMI is a resource allocation methodology developed for psychiatric patients. The CMI provides a valid and robust measure of the expected patient acuity (Hirdes et al., 2002).

Results

Survey 1 and Survey 2 revealed that staff identified that the GPA curriculum helped their understanding of how brain changes impact patient
behavior, improved their response to challenging behaviors, and helped them learn strategies to respond to challenging behavior (Table 1). More than 95% of staff rated the course as very good or excellent in both surveys and would also recommend GPA training to coworkers. Specific body containment techniques appeared to be only mildly helpful (Table 1). The additional questions posed in Survey 2 indicated that 60% of participants have used GPA actively in case-based review, team conferences, and patient safety reporting, and 70% asserted that GPA was most useful with patients who are both verbally and physically responsive. Qualitative comments in both surveys revealed that a greater understanding of the presenting features of dementia and use of distraction techniques were useful in day-to-day care with patients. In Survey 2, participants emphasized that a gentle, respectful, and tolerant approach worked best with this population.

Physical aggression rates declined by a significant 50% PTBD 3 months post-GPA training chi-square with Yates’ correction $\chi^2(2, N = 564) = 27.51, p = .0001$. Three months prior to the completion of training, 42 patients were involved in 370 reported aggressive incidents, and 3 months after the completion of GPA, 39 patients contributed to 194 aggressive incidents (Figure 2). There was little change in occupational injury rates (14 events pre-GPA training and 15 events post-GPA training) or time lost statistics (45.2 days pre-GPA training and 41.7 days post-GPA training).

Paired $t$-test analysis revealed that there was no significant difference between patient care acuity levels for pre- and post-GPA conditions ($p = .154$, unequal variances assumed; $p = .156$, equal variances assumed; SPSS for Windows, 2008).

Table 1. Staff Satisfaction Survey Results Taken Immediately After GPA Training (Survey 1) and 3 Months Post-GPA Training (Survey 2) to Reflect the Percentage of Participants Who Agree or Strongly Agree With the Given Statements

<table>
<thead>
<tr>
<th>Most salient survey questions</th>
<th>Survey 1 ($n = 99$) (%)</th>
<th>Survey 2 ($n = 49$) (%)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>This training has improved my response to challenging behavior</td>
<td>92.7</td>
<td>82.0</td>
<td>−10.3</td>
</tr>
<tr>
<td>This training helped me understand how brain changes impact behavior</td>
<td>85.7</td>
<td>81.6</td>
<td>−4.1</td>
</tr>
<tr>
<td>This training helped me learn strategies to respond to challenging behavior</td>
<td>90.0</td>
<td>81.6</td>
<td>−8.4</td>
</tr>
<tr>
<td>I will use (Survey 1)/I use (Survey 2) specific body containment techniques in my daily practice that I learned from the GPA training</td>
<td>93.9</td>
<td>42.9</td>
<td>−51.0</td>
</tr>
<tr>
<td>Overall I would rate this course as very good or excellent</td>
<td>99.0</td>
<td>94.1</td>
<td>−4.9</td>
</tr>
<tr>
<td>I would recommend GPA training to my coworkers</td>
<td>98.1</td>
<td>95.9</td>
<td>−2.2</td>
</tr>
</tbody>
</table>

*Note: GPA = Gentle Persuasive Approach.*

Discussion

Participants who completed pre- and postsatisfaction surveys appeared to be very satisfied with the GPA curriculum. They have indicated that the training program was a good length, was well organized, used a variety of interesting educational approaches, was facilitated by well-prepared trainers, and provided new learning tools that would be useful in direct clinical practice. Survey 2 revealed that participants employed the physical containment techniques less often than they had anticipated in Survey 1. However, this raises the question as to whether prior training in the PICS program influenced the results of Survey 2 or whether nonphysical GPA interventions have effectively decreased the need for physical containment interventions. Although the body containment techniques appear to be useful, maintaining the appropriate skill level would likely require frequent practice. Therefore, the physical containment techniques and their application may require independent evaluation.

![Physical Aggression Pre & Post GPA Training](https://academic.oup.com/gerontologist/article-abstract/49/4/570/680815/19084957/08680815)
An encouraging finding revealed a dramatic decline in the physical aggression rates 3 months post-GPA training. This decline does not appear to be related to patient acuity levels and, therefore, may be an indicator of GPA program success. This result parallels the findings and supports the validity of other dementia care training programs.

Occupational health and safety injury rates remained unchanged during the evaluation period. Consequently, it remains unclear whether the staff was less vulnerable to injury due to the decreased rates of physical aggression or whether the measure of occupational injury baseline rates was too low to be sensitive to change.

Overall, GPA training has provided staff with a consistent approach to care through the use of a standardized curriculum. Survey results suggest that GPA training increases staff knowledge and competency and also positively impacts their clinical practice. The current evaluation suggests that the GPA curriculum has value not only for patients with dementia but also for an entire geriatric psychiatry population. GPA training is also relevant for registered and non-registered health care providers in a tertiary care setting and may be expandable beyond the GPP to populations of patients who experience major mental illnesses and/or cognitive impairment.

In moving forward with program development, GPA curriculum has augmented the implementation of the evidence-informed Registered Nurses Association of Ontario (2004) best practice guidelines for caring for individuals with delirium, dementia, and depression. The GPA evaluation has contributed to knowledge building of clinical care practice by utilizing case-based reviews and revised care plans while also supporting enhanced communication strategies and a framework for reflective practice development among GPP staff. In general, it may be useful to have similar courses mandated and a structure developed to set minimum standards by a central regulating authority.

In the future, sustainability projects will include additional GPA training opportunities, further analysis of physical containment techniques, and improved chart documentation while continuing to support knowledge transfer and the clinical application of skills. Long-term effects of the GPA curriculum remain to be evaluated.

Limitations

Limitations of the evaluation reflect the financial and human resources required to expand and continue GPA training opportunities for GPP staff. In Survey 2, 50% of the participants completed the follow-up evaluation. This reflects the fact that the initial evaluation was completed immediately after training and that the follow-up evaluation was a voluntary contribution. Furthermore, the nature of risk event recording may not accurately reflect the true levels of physical aggression. Although there appears to be a strong relationship between GPA training and reduction in physical aggression rates, the study should be replicated to validate these findings. Other limitation concerns include the cross-disciplinary nature of this research project. The curriculum involved four modules, and future research should evaluate the individual contributions of each component. Not all staff were trained, and perhaps, the effects would have been stronger with additional training.

Conclusions

The GPA curriculum appears to be a useful and positive tool for improving the care of an inpatient geriatric psychiatry population. Staff reported an increase in competency and confidence when dealing with responsive behaviors. Application of the GPA curriculum was associated with a statistically significant and clinically important decrease in aggressive behavior rates within the GPP, a change that is independent of bed occupancy and patient acuity levels. GPA body containment techniques were less used on geriatric patients who experience responsive behaviors. The program evaluation suggests that application of the GPA curriculum may be extended to patients with diagnoses other than dementia, including mood disorders and schizophrenia.

Funding

Funding to train coaches, acquire teaching materials, and evaluate the GPA initiative was provided by the St. Joseph’s Health Care Foundation Mental Health Endowment Fund.

Acknowledgments

We would like to thank Krystina Boyko, Bonnie Kotnik, Lisa VanBusSEL, and Elizabeth Pattison for their help and support as well as the Organizational Development and Learning Service at Regional Mental Health Care London and the coaches and staff who participated in the program.

References


Received October 20, 2008

Decision Editor: Kathleen Walsh Piercy, PhD