

Developing a Research Agenda on Resident-to-Resident Aggression: Recommendations From a Consensus Conference

LYNN McDONALD, PhD

*Institute for Life Course and Aging, Faculty of Medicine, University of Toronto, Toronto,
Ontario, Canada*

Factor-Inwentash Faculty of Social Work, University of Toronto, Toronto, Ontario, Canada

SANDER L. HITZIG, PhD

*Institute for Life Course and Aging, Faculty of Medicine, University of Toronto, Toronto,
Ontario, Canada*

KARL ANDREW PILLEMER, PhD

Department of Human Development, Cornell University, Ithaca, New York, USA

MARK S. LACHS, MD, MPH

*Division of Geriatrics and Gerontology, Weill Cornell Medical College, New York,
New York, USA*

MARIE BEAULIEU, PhD

Research Centre on Aging, University of Sherbrooke, Sherbrooke, Quebec, Canada

PATRICIA BROWNELL, PhD

Graduate School of Social Service, Fordham University, New York, New York, USA

DAVID BURNES, PhD

Factor-Inwentash Faculty of Social Work, University of Toronto, Toronto, Ontario, Canada

EILON CASPI, PhD

Ocean State Research Institute, Providence, Rhode Island, USA
*Geriatrics and Extended Care Data and Analyses Center, Canandaigua VA Medical Center,
Canandaigua, New York, USA*

Address correspondence to Lynn McDonald, Institute for Life Course and Aging, Faculty of Medicine, University of Toronto, 263 McCaul Street, Room 328, Toronto, Ontario M5T 1W7, Canada. E-mail: lynn.mcdonald@utoronto.ca

JANICE DU MONT, EdD

Women's College Research Institute, Women's College Hospital, Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada

ROBERT GADSBY, MSc

Family Council Network Four (FCN-4), Hamilton Niagara Haldimand Brant, Ontario, Canada

THOMAS GOERGEN, PhD

Department of Criminology and Crime Prevention, German Police University, Muenster, Germany

GLORIA GUTMAN, PhD

Gerontology Research Centre, Simon Fraser University, Vancouver, British Columbia, Canada

SANDRA P. HIRST, RN, PhD, GNC(C)

Faculty of Nursing, University of Calgary, Calgary, Alberta, Canada

CAROL HOLMES, RN, MN, GNC(C)

Registered Nurses' Association of Ontario (RNAO), Toronto, Ontario, Canada

SHAMAL KHATTAK, BSc (Candidate)

Institute for Life Course and Aging, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

ARIELA LOWENSTEIN, PhD

Max Stern Yezreel Valley College, Yezreel Valley, Israel

RAZA M. MIRZA, PhD

Institute for Life Course and Aging, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

SUSAN MCNEILL, RN, MPH

Registered Nurses' Association of Ontario (RNAO), Toronto, Ontario, Canada

AYNSLEY MOORHOUSE, MFA, MSW, RSW

Institute for Life Course and Aging, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

ELIZABETH PODNIEKS, RN, PhD

School of Nursing, Ryerson University, Toronto, Ontario, Canada

RAEANN RIDEOUT, MA

Canadian Network for the Prevention of Elder Abuse (CNPEA), Peterborough, Ontario, Canada

ANNIE ROBITAILLE, PhD

Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, Ontario, Canada

PAULA A. ROCHON, MD, MPH, FRCPC

*Women's College Research Institute, Women's College Hospital, University of Toronto,
Toronto, Ontario, Canada*

JARRED ROSENBERG, MD

Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

CHRISTINE SHEPPARD, MSW

*School of Public Health and Health Systems, University of Waterloo, Waterloo, Ontario,
Canada*

LAURA TAMBLYN WATTS, LLB

Faculty of Law, University of Toronto, Toronto, Ontario, Canada

CYNTHIA THOMAS, PhD

Rockville, Maryland, USA

This article provides an overview of the development of a research agenda on resident-to-resident aggression (RRA) in long-term care facilities by an expert panel of researchers and practitioners. A 1-day consensus-building workshop using a modified Delphi approach was held to gain consensus on nomenclature and an operational definition for RRA, to identify RRA research priorities, and to develop a roadmap for future research on these priorities. Among the six identified terms in the literature, RRA was selected. The top five priorities were: (a) developing/assessing RRA environmental interventions; (b) identification of the environmental factors triggering RRA; (c) incidence/prevalence of RRA; (d) developing/assessing staff RRA education interventions; and (e) identification of RRA perpetrator and victim characteristics. Given the significant harm RRA poses for long-term care residents, this meeting is an important milestone, as it is the first organized effort to mobilize knowledge on this under-studied topic at the research, clinical, and policy levels.

KEYWORDS *consensus workshop, elder mistreatment research, research-practice collaboration, aggression, assaultive behavior, long-term care*

INTRODUCTION

Resident-to-resident aggression (RRA) is a growing phenomenon that causes harm to residents living in long-term care facilities. Despite the growing numbers of older adults requiring long-term care in Canada and elsewhere

(Cranswick & Dosman, 2008; Grignon & Bernier, 2012), RRA is an understudied issue, with only a handful of studies dedicated to the topic (e.g., Caspi, 2013a; Castle, 2012; Ellis et al., 2014; Lachs, Bachman, Williams, & O'Leary, 2007; Lachs et al., 2010; Malone, Thompson, & Goodwin, 1993; Pillemer et al., 2012; Rosen et al., 2008a; Rosen, Lachs, & Pillemer, 2010; Shinoda-Tagawa et al., 2004; Teresi et al., 2013; Trompeter, Scholte, & Westerhof, 2011). Of these studies, only one intervention study (Teresi et al., 2013) and two studies examining educational approaches/strategies for addressing RRA (Caspi, 2013a; Ellis et al., 2014) were identified. While information on RRA is extremely limited in Canada, a secondary data analysis suggests that it represents one-third of reported abuse cases across long-term care facilities (McDonald et al., 2015). Similar rates of occurrence (23%) were documented in a survey and chart review study of RRA in three long-term care homes (facilities) in Ontario (Brazil, Maitland, Walker, & Curtis, 2014). A driving force raising awareness and propelling action on RRA in Canada has been the recent rise in media reports on this topic (e.g., Rinaldo, 2013) that have sensationalized extreme cases, where RRA led to serious injury and in some cases death.

Despite the relative paucity of RRA research, a wide variety of terms (what it is called) and definitions (what it means) have been used to describe acts of aggression (verbal, physical, material, and sexual) among residents of long-term care facilities. These include resident-to-resident elder mistreatment (Lachs et al., 2007), resident-to-resident aggression (Pillemer et al., 2012; Rosen et al., 2008a; Rosen, Pillemer, & Lachs, 2008b), resident-to-resident violence (Snellgrove, Beck, Green, & McSweeney, 2013) resident-to-resident relational aggression (Trompeter et al., 2011), and resident-to-resident abuse (Castle, 2012; Ramsey-Klawnsnik, Teaster, Mendiando, Marcum, & Abner, 2008; Zhang, Page, Conner, & Post, 2012).

A number of reasons have contributed to the diversity of nomenclature, with a lack of consensus as to what acts constitute this form of aggression (Pillemer et al., 2012) likely being paramount. Further, RRA is difficult to classify because it does not fit comfortably into typical definitions of elder abuse, which tend to include an expectation of trust on the part of the victim in relation to the perpetrator. In RRA, both the perpetrator and the victims can suffer harm, while the perpetrator is likely to be confused due to dementia or other cognitive impairment and thus not deemed culpable for a supposedly unprovoked act (McDonald et al., 2015). Some view these occurrences as a separate category within the group of agitated behaviors associated with dementia or other chronic mental health illnesses in long-term care residents (Shah, Dalvi, & Thompson, 2005; Snowden, Sato, & Roy-Byrne, 2003). For instance, the term "responsive behaviors" has been used to account for aggressive acts between residents. Responsive behaviors refer to:

behaviours that often indicate an unmet need in a person whether cognitive, physical, emotional, social, environmental or other, or a response to circumstances within the social or physical environment that may be frustrating, frightening or confusing to a person. (Ontario Ministry of Health and Long-Term Care, 2007, pp. 2–33)

However, use of the term is not ubiquitous across Canada at the clinical and/or policy level, with some provinces (e.g., Ontario) using responsive behaviors while others use the term “aggressive or unusual behavior” to account for altercations among residents (e.g., British Columbia Ministry of Health, 2011). Overall, the significant degree of variation in the nomenclature used to describe and account for RRA indicates there is a need for further research to better understand how it should be described, to better understand why it occurs, and to identify means for preventing it.

Given the probability that the occurrence of RRA will increase with the aging population, along with the increased recognition of the impact RRA holds for residents and their families, efforts were undertaken to organize a meeting to address RRA, the first of its kind in North America. The present article provides an overview on the development of a research agenda on RRA by an expert panel of researchers and practitioners. A 1-day consensus-building workshop using a modified Delphi approach was held to gain consensus on nomenclature and an operational definition of RRA, to identify RRA research priorities, and to develop a roadmap for future research on RRA in Canada and abroad. Similar to other initiatives in the field of elder abuse (e.g., Pillemer et al., 2011), a stronger and coordinated research effort can help to define the magnitude of the problem, identify causes, and test, implement, and measure the effectiveness of interventions (Doll, Bonzo, Mercy, & Sleet, 2008; Ingram, 2003). The processes and outcomes presented in this article serve as a useful model for organizing and gaining consensus on an emerging topic among a diverse group of expert stakeholders, and which can be applied to other domains.

METHODS

Guiding Framework

The processes guiding the consensus workshop structure were based on the Delphi method (Dalkey & Helmer, 1963). Delphi is “a structured group communication method for soliciting expert opinion about complex problems or novel ideas, through a series of questionnaires and controlled feedback” (Day & Bobeva, 2005, p. 103). Although there is no explicit or all-encompassing definition of a Delphi approach (Linstone & Turoff, 2002), a key feature is the use of a series of questionnaires to collect data from a panel of selected participants, and then obtain feedback on previous

rounds of collected data (Hsu & Sandford, 2007). As such, this feedback process allows and encourages persons participating in the Delphi process to reassess initial judgments about the information provided in previous iterations (Hsu & Sandford, 2007). Other characteristics of Delphi Inquiry designs account for: (a) the purpose of the study (building, exploration, testing, evaluation); (b) number of rounds for the feedback process (between two and ten); (c) participants (homogeneous or heterogeneous groups); (d) mode of operation (face-to-face or remote access); (e) anonymity of panel (full or partial); (f) communication media (paper-and-pen based, through telephone/fax, computerized); and (g) concurrency of rounds (sequential set of rounds or real-time online conferencing; Day & Bobeva, 2005).

For the present consensus workshop, the Delphi approach was deemed suitable, since the main objectives were to obtain consensus on nomenclature and operational definition of RRA and to gain agreement on the top five research priorities in order to inform a research agenda on the topic. In terms of the participants, a heterogeneous group of stakeholders was selected to participate in the expert panel (described below), and two rounds were selected for feedback, which is an acceptable number (Erffmeyer, Erffmeyer, & Lane, 1986). Rounds (described below) were conducted sequentially via mixed approaches (round one by computerized survey; round two by pen and paper). Rounds were conducted with partial anonymity, with the first round being conducted anonymously via the computerized survey, and the second round being done at a face-to-face meeting with the expert panel. Overall, the adoption of Delphi techniques was useful for imposing a structure for achieving the workshop goals while ensuring democratic participation. In addition to gaining consensus on RRA terms/definitions and research priorities, time was allotted for members of the expert panel to discuss the selected priorities and develop roadmaps for moving the agenda forward (i.e., planning of research grants). Figure 1 provides an overview of the structure and processes implemented for the consensus workshop and illustrates its key outcomes.

Identification of Expert Panel

The selection of the expert panel for the Delphi process is the most important step in the process since it directly relates to the quality of the results generated (Taylor & Judd, 1989). As such, it is recommended that the Delphi expert panel be "highly trained and competent within the specialized area of knowledge related to the target issue" (Hsu & Sandford, 2007, p. 3). For the current RRA workshop, a heterogeneous set of participants was targeted for invitation to serve on the expert panel, which included professionals with specific expertise on RRA, elder neglect and mistreatment, dementia, and/or health services research related to long-term care. Similar to other Delphi studies (e.g., Anderson & Schneider, 1993; Miller, 2001), the methods of selection

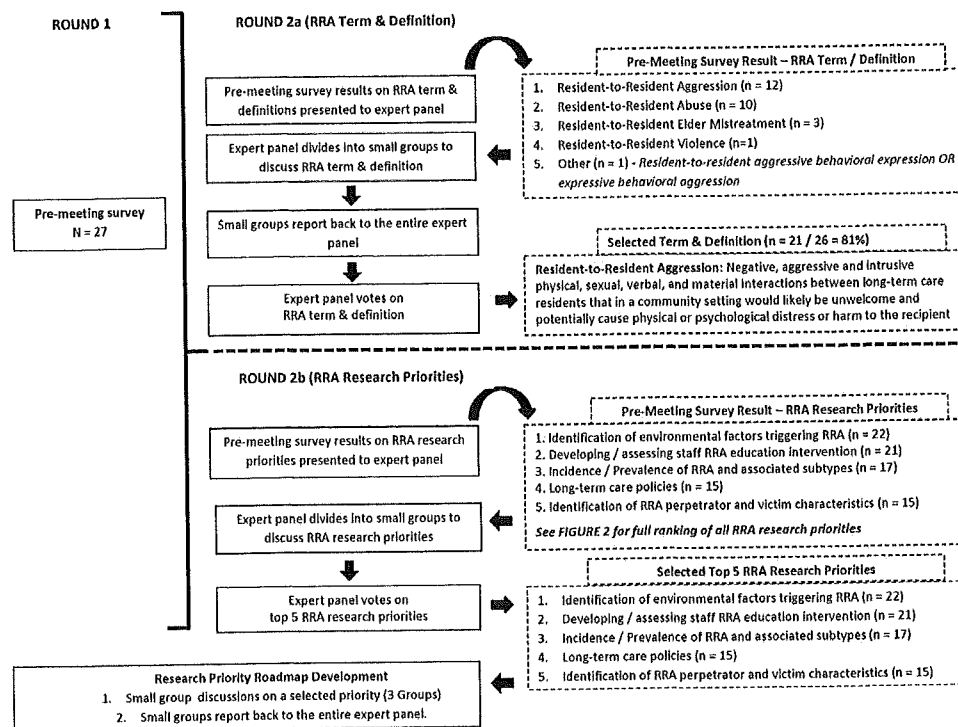


FIGURE 1 Overview of the structure, processes implemented, and key outcomes for the consensus workshop.

included recruiting authors of relevant publications, making contacts with those who had first-hand relationships with the issue, and contacting members of our existing network who met the listed criteria above (i.e., persons from the elder neglect and mistreatment field, dementia, etc.).

RRA Report

Preparatory effort is a necessary precursor to the rounds in the Delphi approach (Hsu & Sandford, 2007). Although the identified expert panel had relevant expertise, a document detailing the objectives for the planned workshop, along with a detailed report on RRA, was drafted and circulated to all expert panel invitees. It should be noted that the preliminary terminology used for the meeting was "resident-to-resident abuse." In order to summarize the state of the field and to pinpoint key issues, a scoping review on the RRA literature (1985 to April 2013) was conducted (McDonald et al., 2015). A scoping review maps existing literature in order to examine the nature of research activity, disseminates research findings, and identifies research gaps within the literature (Arksey & O'Malley, 2005). Scoping reviews can be

useful for identifying trends and areas in need of future and more focused research (Levac, Colquhoun, & O'Brien, 2010). Given the paucity of literature on RRA, a scoping review approach was ideal for summarizing the key issues in the field for both researchers and practitioners invited to participate in the workshop.

The scoping review provided information on the types of studies on RRA that had been conducted (i.e., design) and identified which countries were leading the work on this topic. It summarized the literature in the following categories: (a) the extent of RRA (incidence and prevalence); (b) setting and timing of RRA; (c) description of the types of RRA; (d) description of RRA perpetrators and victims; (e) RRA triggers; (f) staff and resident responses to RRA; (g) outcomes of RRA; and (h) interventions for RRA. In addition, the terms and definitions used in the literature were summarized.

Also included in the RRA report were findings from a secondary data analysis on RRA in Canada (presented in McDonald et al., 2015). Data were obtained from a media organization that provided data reports and a redacted data set on alleged and reported cases of abuse in Canadian long-term care facilities in 2011. Data were collected from all the provinces; however, data from the territories were not provided. These data were obtained from various Ministries across the country through publicly available documents or via the Access to Information Act of Canada (R.S.C, 1985, C-A1). The analysis on the data set on RRA in Canada provided some indication that this type of abuse may make up approximately one-third of reported cases. At the time, this was the only available Canadian data on this issue.

Additional resources included a list of abstracts published on RRA that were outside the time frame of the scoping review (i.e., research published after April 2013), links to Canadian media reports of RRA, and various organizations with relevant data and/or mandates for addressing RRA. Overall, the report provided a basis to understand the state of the literature, to highlight the personal impact of RRA on victims and their families and what available resources and organizations existed for potential partnerships to help move a research agenda forward.

Round 1—Premeeting Survey

Along with the report detailed above, participants of the expert panel were sent a link to an online premeeting survey, which asked each member of the panel to select their preferred term from six listed terms and definitions used in the RRA literature (see Table 1). Respondents also were presented with the option of "Do not know" or to include a definition of their own. In addition to nomenclature and definitions, the survey presented 13 potential research priorities (see Figure 2) that were generated from the scoping review (McDonald et al., 2015). The members of the invited expert panel were asked to select five research priorities among the list (and/or to provide

Result – RRA Term / Definition (n = 12)
(0)
Isolation (n = 3)
(1)
Is aggressive behavioral expression OR
Isolation (n = 21 / 26 = 81%)
Isolation, aggressive and intrusive interactions between long-term care residents would likely be unwelcome and cause emotional distress or harm to the recipient
Result – RRA Research Priorities
Factors triggering RRA (n = 22)
Intervention (n = 21)
Isolated subtypes (n = 17)
Victim characteristics (n = 15)
Research priorities
Research Priorities
Factors triggering RRA (n = 22)
Intervention (n = 21)
Isolated subtypes (n = 17)
Victim characteristics (n = 15)

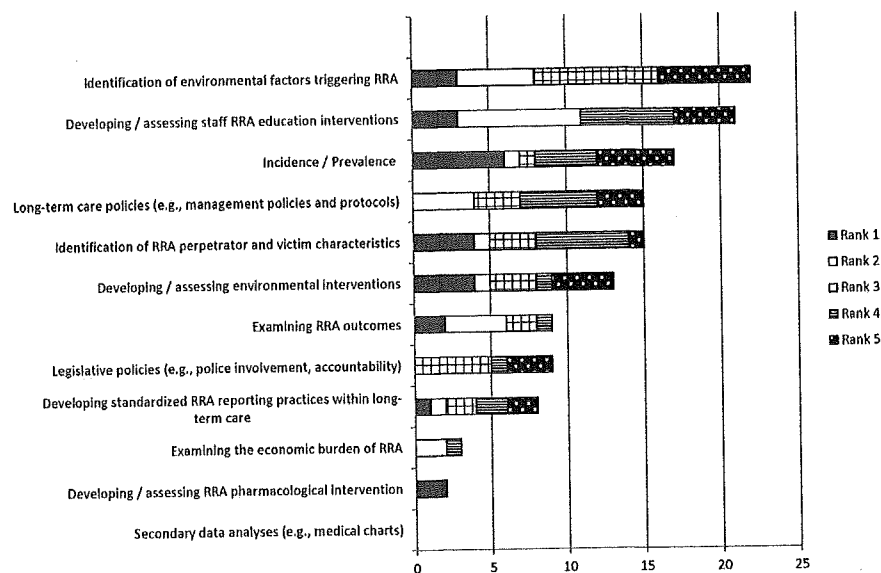
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TABLE 1 RRA Terms and Definitions

Term	Definition
Resident-to-resident abuse	Abuse of one resident in the nursing home to another resident (Castle, 2012)
Non-staff abuse	Maltreatment of nursing home residents by people who are not staff or caregivers in the nursing home; mistreatment can be broadly defined and can include physical, sexual, verbal, emotional and material abuse (Zhang et al., 2012)
Resident-to-resident aggression	Negative and aggressive physical, sexual, or verbal interactions between long-term care residents that in a community setting would be unwelcome and potentially cause physical or psychological distress to the recipient (Pillemer et al., 2012; Rosen et al., 2008a, 2008b)
Resident-to-resident elder mistreatment	Aggressive behaviours between residents (Lachs et al., 2007; Lachs et al. 2010; Teresi et al., 2012)
Resident-to-resident relational aggression	A nonphysical form of aggressive behavior that causes damage to relationships between residents (Trompeter et al., 2011)
Resident-to-resident violence	Delivery of noxious stimuli by one resident to others that is clearly not accidental (Snellgrove et al., 2013)
Resident-to-resident violent incidents	One nursing home resident is physically injured by another resident (Shinoda-Tagawa et al., 2004)

**FIGURE 2** Potential research priorities generated from the scoping review.

up to three priorities not listed), and to rank them, with one representing the least important priority and five representing the most important. As well, there was an open-ended item asking the members of the invited expert panel to provide any additional comments they felt relevant to the

overall initiative. Along with the workshop report, a link to the online survey was sent to the expert panel via e-mail, and responses were collected anonymously. Thus, the core investigation team could not attribute a set of responses to a particular member of the expert panel.

Round 2—Workshop Organization and Consensus Building

The consensus workshop was organized into three separate components: (a) review of the RRA report and expert presentations on RRA; (b) consensus building on an RRA nomenclature and operational definition, and on the top five RRA research priorities; and (c) brainstorming and planning of research to address these priorities in Canada and abroad (see Figure 1). A primary facilitator (SLH) organized the meeting components and managed the discussions throughout the day. As well, three note-takers were present to document the proceedings.

The first part of the meeting was used to detail the structure of the workshop to the expert panel, and to highlight the key issues on the topic of RRA. This included having the meeting leader and primary facilitator (LM and SLH, respectively) provide a brief overview of the findings of the distributed RRA report. As well, two experts on RRA (MSL and KAP) provided a review of their research on RRA and highlighted key clinical considerations and research issues. Opportunities for questions and comments were provided to the expert panel in order to exchange ideas and critiques on the materials presented. As such, the premeeting materials and presentations helped to orient the expert panel to the current state of knowledge regarding RRA.

The second component of the meeting was dedicated to consensus building, which first focused on selecting RRA nomenclature and definitions, and then on identifying RRA research priorities. For consensus on RRA nomenclature/definitions, the expert panel was first presented the findings from the premeeting survey (Round 1) and were then provided time (approximately 15 minutes) to discuss the results in small groups and exchange ideas on this issue. The groups then reported on their discussions and provided feedback on what they considered the appropriate term and operational definition for RRA. Refinement of existing nomenclature or addition of a new term and operational definition were also permitted. Following this step, the members of the expert panel were then asked to vote on their preferred nomenclature. This was accomplished by having the different terms and definitions listed on easels throughout the meeting room, and by giving the panel a sticker using for voting. Votes were then tallied to determine the most commonly preferred term and definition. Consensus on a nomenclature and operational definition was achieved when at least 80% of participants agreed.

A similar process was followed for gaining consensus on the top five research priorities. The members of the expert panel were presented the

findings from the premeeting survey (Round 1), provided time in small groups to discuss their thoughts on the most important research priorities and report back to the larger group, with feedback being incorporated into the existing priorities, and then select their top five priorities among those listed throughout the room. The top five research priorities were identified by tallying the number of supporting votes.

RESULTS

Forty-five persons were invited to take part in the expert panel and to attend the consensus workshop. Of those, 36 agreed to have the premeeting survey and materials sent to them, and 23 were able to attend the workshop. In addition to the meeting leader and primary facilitator, three student note-takers (one undergraduate and two graduate) with relevant expertise on the topic (i.e., health and/or social work, elder abuse, and dementia) also attended. Thus, a total of 28 persons participated in the consensus workshop.

In terms of expertise, the expert panel consisted of persons from a number of professional domains and levels (academic, clinical, advocacy, and policy), which included medicine, social work, nursing, pharmacy, law and policy, gerontology, and psychology.

RRA Terminology and Operational Definition

Of the 36 persons who agreed to review the premeeting survey, only 27 completed the survey (75% response rate). With regard to RRA nomenclature and operational definition (see Table 1 for the list of terms and definitions), the most popular term and definition selected on the premeeting survey was resident-to-resident aggression (RRA; 44%), followed by resident-to-resident abuse (37%), and resident-to-resident elder mistreatment (11%; see Figure 1). After being presented with the results, the expert panel divided into three breakout groups to discuss the results and then reported back to the entire panel prior to the second round of voting.

During the feedback process to the entire expert panel, an important point raised across the groups was the selection between the term "abuse" versus "aggression." Some noted advantages to the term "abuse" were that it was thought to be broad in scope, attributes responsibility to the institution, highlights the seriousness of RRA events, and was grounded in the field of elder abuse and mistreatment. Conversely, there were some concerns that using the term abuse implies intent on the part of the initiator, which might not be the case in situations where the perpetrator lacks capacity (e.g., as seen with dementia residents). As well, there may be concerns that introducing the term in a regulatory environment would lead to stigmatization, contribute to under-reporting issues, and might raise ethical concerns related

to its study (e.g., collecting data from vulnerable populations). The term "aggression" was deemed more context-specific, more neutral, and less stigmatizing than "abuse." As well, it does not imply intent. However, a concern with using the term "aggression" was that it might dilute the problem of elder abuse, which many of the participants reported striving to raise awareness about to the larger community.

Another key issue discussed was the introduction of the term "responsive behaviors," which has become popular in the field of dementia research (Dupuis & Luh, 2005; Speziale, Black, Coatsworth-Puspoky, Ross, & O'Regan, 2009). Related terms including "behavioral expressions" (National Dementia Initiative, 2013), "expressive behaviors" (Power, 2010), and "reactive behaviors" (Teitelman, Raber, & Watts, 2010) were also highlighted as potential alternatives. Although used in some regions across the country (e.g., Ontario), it was felt that responsive behavior was a relatively unfamiliar term and did not adequately describe the phenomenon. Key aspects noted for the definition were the need to include a target of the aggressive act and to emphasize the potential for physical and/or emotional harm resulting from the act, and that both the possible short-term and long-term consequences should be captured.

A resolving point for moving the group toward consensus was that the term was to be housed under a research framework, and that adoption of RRA into clinical, policy, and/or advocacy domains was premature and outside the scope of the current workshop. Twenty-one persons voted for "Resident-to-Resident Aggression," two voted for "Resident-to-Resident Abuse," and one person abstained from voting. Hence, consensus was achieved (81%). It should be noted that the group agreed to slightly modify the selected definition (see Table 1 for the unmodified definition) to include acts of damaging or stealing the property of other residents. The final term and operational definition (see Figure 1) was:

Resident-to-resident aggression: Negative, aggressive and intrusive verbal, physical, sexual, and material interactions between long-term care residents that in a community setting would likely be unwelcome and potentially cause physical or psychological distress or harm to the recipient.

RRA Research Priorities

Results from the premeeting survey identified that the top five research priorities were: (a) developing/assessing RRA environmental intervention; (b) developing/assessing staff RRA education intervention; (c) incidence/prevalence of RRA and associated subtypes; (d) long-term care facility policies; and (e) identification of RRA perpetrator and victim characteristics (see Figure 1 and Figure 2).

Prior to the second round of voting, the expert panel shared some initial insights on their perspectives on the various priorities. With regard to the incidence and prevalence of RRA, the expert panel recognized the need for this as a starting point since numbers would help to establish the importance of the topic. There was also recognition that intervention studies were strongly needed to provide evidence-based direction on ways to prevent or reduce its occurrence. The role of the environment was also discussed in terms of needing not only to recognize the physical environment, which could contribute to triggering RRA (e.g., lighting, configuration, etc.), but also the differing social and cultural milieus. Having an understanding of what is deemed "normal" within a long-term care environment can serve to identify targets for institutional change. Staff training and education were recognized as being of high importance, since they were deemed a mechanism also for addressing institutional change. The issue of training was also thought to be a logical fit with research investigating long-term care policies. A notable comment was the need to include the voice of the residents to effectively capture their concerns and experiences.

The second round of voting yielded the following top five priorities: (a) developing/assessing RRA environmental intervention (20 votes); (b) identification of environmental factors triggering RRA (19 votes); (c) incidence/prevalence of RRA and associated subtypes (18 votes); (d) developing/assessing staff RRA education interventions (14 votes); and (e) identification of RRA perpetrator and victim characteristics (14 votes).

RRA Research Priority Roadmaps

Of the five research priorities, the top three were selected for further discussions in the afternoon by three breakout groups from the larger expert panel. This included: (a) developing/assessing RRA environmental interventions; (b) identification of environmental factors triggering RRA; and (c) incidence/prevalence of RRA.

With regard to developing/assessing RRA environmental interventions, issues of staff education and training were prominently discussed by the subgroup of the expert panel, since definitions of environment were deemed not only to include the physical environment but the sociocultural one as well (described above in research priorities). A first step toward commencing work in this area was to build from existing research (i.e., Caspi, 2013a; Ellis et al., 2014; Teresi et al., 2013), which would include conducting a systematic review to document existing interventions and related outcomes. Another approach for informing an environmental intervention was to employ methods used in falls research, in particular video recording in public areas (e.g., Woolrych et al., 2014). In similarity to falls in long-term care facilities, the ability to identify contributory factors to RRA is undermined by limitations in existing reporting procedures, such as RRA not being witnessed, erroneous

incident reports, or memory recall bias (Wagner, Capezuti, Taylor, Sattin, & Ouslander, 2005). It was felt that as with falls, video could be used to conduct observational studies and thus gain a better understanding of RRA.

The end goal of working with existing research and using novel data capture approaches would be to create a manual on approaches for improving documentation, recognition of the problem of RRA, and strategies on how staff could intervene. Outcomes of interest from an intervention study would be improved documentation and reported increases in knowledge of events, which could potentially contribute to a reduction in RRA. Similar to the Hawthorne Effect (Roethlisberger & Dickson, 1939), it was noted that rates of RRA might initially be higher than expected due to increased recognition and documentation by long-term care staff. This was mentioned as a methodological issue in a recent Canadian study examining rates of RRA (Brazil et al., 2014).

With regard to the physical environment, a better understanding of how settings were configured is needed in order to anticipate RRA events to assist in their prevention. To promote greater awareness and understanding of this issue, a review of existing literature was suggested, since there are known associations between behaviors and environment in persons with dementia in long-term care facilities (i.e., Zeisel et al., 2003). Additional suggestions for identifying and addressing problems were the use of standardized outcome measures (i.e., Therapeutic Environment Screening Survey for Nursing Homes [Sloane et al., 2002]), and perhaps obtaining input from interior designers/architects on optimal ways of configuring space.

A focus of the "identification of environmental factors triggering RRA" subgroup of the expert panel was the further refinement of what was meant by "environment." Discussions from this group led to three environmental categories to be considered: (a) social (relational); (b) organizational; and (c) physical. For instance, issues of staff training, design of dining and public spaces, noise (e.g., other residents' yelling), amount of space given to each resident (e.g., shared or multiple occupancy bedrooms), and staff changes/turnover were all discussed as potential triggers. From these discussions, another key definitional point emerged regarding the use of the word "trigger." Although it might be helpful for narrowing down which environmental factors to focus on, there might be a multitude of contributing risk factors/conditions, any one of which could be the final trigger that precipitates the RRA. The report provided to the expert panel identified a number of contributing factors associated with RRA, including invasion of personal space and other challenges associated with communal living (Clough, 1999; Lachs et al., 2010; Pillemer et al., 2012; Rosen et al., 2008a; Snellgrove et al., 2013). In particular, crowding, TV volume/channel, room temperature, and lighting were major concerns that have been noted in several studies to fuel aggression between residents (Lachs et al., 2007; Lachs et al., 2010; Pillemer et al., 2012; Rosen et al., 2008a; Snellgrove et al., 2013). As such,

a project focusing on documenting causes (individual or cumulative) and refining terminology (e.g., trigger, catalyst, risk factors) is needed.

The second line of discussion that emerged from this group was how to reduce the number of RRA incidents by modifying the environment. Similar to the "developing/assessing RRA environmental intervention" group, this group discussed optimal space configuration and low-cost options to minimize RRA that could be informed by designers, with input from key decision makers in long-term facility care (e.g., administrators). The creation of "quiet spaces," along with flexible scheduling, might also contribute to a person-centered care approach and thereby reduce RRA.

The incidence/prevalence group discussed the importance of having professional organizations, associations, and the government (e.g., nursing, health ministry, etc.) support any planned research. With regard to identifying RRA cases, the need for triangulation was deemed important and included the use of focus groups/surveys with key stakeholders (residents and their family members, and long-term care staff), and the use of micro- and macro-level sources of administrative data (e.g., medical charts, police reports, health services databases, etc.). The use of video was also discussed, but it was recognized there might be privacy issues associated with this (i.e., Bharucha et al., 2006; Dorsten, Sifford, Bharucha, Mecca, & Wactlar, 2009). Given the increased recognition of economic considerations in health research in Canada (CADTH, 2014), mechanisms for capturing associated costs with RRA were noted as being important to document. Participants also agreed that the first step required for moving forward with an incidence study was to conduct a pilot study within a provincial setting, refine the methodology, and then conduct a larger-scale study relevant to a national agenda.

DISCUSSION

The described consensus-building workshop provided a useful mechanism for generating a term and an operational definition of RRA, and it helped to identify priorities for future research. Further, it served as a mechanism to generate an initial roadmap for key issues requiring consideration in the design of research studies to support the identified priorities. Resolving nomenclature and establishing an operational definition of RRA is needed for moving an organized research agenda forward, since use of different terminology and definitions can contribute to confusion about *which* aggressive behaviors among residents are assessed and/or *what* aspects of the behavior are encompassed and *how* these should be assessed. Consensus on nomenclature and definition will facilitate comparison of findings across future studies and enable the critical evaluation of findings through systematic

reviews. Similarly, consensus around research priorities can serve to focus efforts and maximize opportunities for collaborative and targeted research.

With regard to the identified research priorities, there is a clear need for work addressing both the description and identification of RRA (incidence/prevalence) and interventions/contributing factors related to residents' environment. The stated need for further incidence/prevalence studies was consistent with previous academic discussions on research priorities in elder mistreatment (Pillemer et al., 2011), while the need for intervention research was consistent with priorities of those practicing in the field (Pillemer et al., 2011). Given the limited existing Canadian incidence and prevalence data (Brazil et al., 2014; McDonald et al., 2015), it is imperative that the extent of RRA and its various subtypes (e.g., verbal, physical, sexual, etc.) are well documented. This information can serve to inform interventions, as it will provide a better understanding of when and where RRA occurs, who typically commits RRA, and who is vulnerable to its occurrence (the victim).

When the literature is examined, victim and perpetrator profiles do emerge. Victims of RRA are often female residents (Burgess & Phillips, 2006; Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2004) who are cognitively impaired (Burgess, Dowdell, & Prentky, 2000; Burgess & Phillips, 2006; Malone et al., 1993; Ramsey-Klawnsnik et al., 2008; Rosen et al., 2008a; Rosen et al., 2010; Shinoda-Tagawa et al., 2004; Sifford-Snellgrove, Beck, Green, & McSweeney, 2012; Teaster & Roberto, 2004) and who exhibit wandering behaviors (Rosen et al., 2008a; Shinoda-Tagawa et al., 2004; Sifford-Snellgrove et al., 2012). Within the context of understanding RRA occurrences, Soreff (2012) points out that victims typically fall into three categories: unintentional victim (resident may unintentionally provoke another resident), provoking victim (resident who deliberately antagonizes others), and bystander victim (being in the wrong place at the wrong time). Less is known about perpetrators, but they typically are male (Lachs et al., 2007; Ramsey-Klawnsnik et al., 2008; Teaster & Roberto, 2003, 2004; Teaster et al., 2007), have premorbid prejudices and racial and stereotypical opinions (Rosen et al., 2008a; Sifford-Snellgrove et al., 2012), have strong personalities with short tempers, tend to be "more with it," and tend to have little empathy and patience for other residents (Clough, 1999; Sifford-Snellgrove et al., 2012). It is important to note that there are a number of contributing intrapersonal (e.g., sense of loss), interpersonal, biographical, and medical (e.g., pain) issues that can contribute to someone acting aggressively toward another resident (Soreff, 2012). As such, it is important that a holistic approach is adopted to better understand why RRA occurs among residents, which might provide insight on how to prevent future instances (e.g., identifying an unmet need; National Dementia Initiative, 2013; Soreff, 2012).

Concerning times and places when RRA occurs, there are some data indicating that in shared spaces (e.g., dining hall, TV lounge) and during later

times of day, there is an increased frequency (Lapuk, 2007; Malone et al., 1993; Rosen et al., 2008a; Shinoda-Tagawa et al., 2004). However, details regarding victim and perpetrator characteristics, and time and setting of RRA, are piecemeal, and better data are needed to confirm these findings. Studies capturing details of occurrences of RRA would also better support reporting mechanisms for use by long-term care staff and by overseeing regulatory bodies, which currently are clearly lacking (Caspi, 2013b; McDonald et al., 2015; Teresi et al., 2013).

Along with documentation, there is also a strong need for action to prevent RRA. RRA can negatively impact the health, well-being, and dignity of older adults living in long-term care facilities (Shinoda-Tagawa et al., 2004; Trompetter et al., 2011). For instance, victims of RRA experienced a decline in overall psychosocial health. Specifically, self-reported victimization was linked with a reduction in life satisfaction and a greater risk for depression, anxiety, loneliness, low self-esteem, and overall negative mood (Trompetter et al., 2011). Disturbingly, there is evidence that victims of RRA were shown to be four times more likely to experience neglect from nursing home staff (Zhang et al., 2012), and that victims of sexual RRA did not receive any post-care for addressing the assault (Teaster & Roberto, 2003; Teaster & Roberto, 2004; Teaster et al., 2007). Clearly, to focus energies solely on the description of a potentially life-threatening event is not sufficient and is likely to be of little comfort to residents and their families. Since there is currently only one intervention study (Teresi et al., 2013) and limited research into educational approaches/strategies (Caspi, 2013a; Ellis et al., 2014), immediate efforts are needed to propel action for the prevention of RRA.

With regard to environmental interventions, the discussions by the expert panel highlighted the importance of considering not only the physical environment but also the social and cultural environments. This is consistent with existing literature (e.g., Stolee et al., 2005), which takes into account organizational and system factors that hinder knowledge transfer and sustained impacts of continuing education. Similarly, the discussions on the identification of environmental triggers to RRA flowed toward discussions on environmental modifications. A focus of the environment is clearly a high priority, and future research should build on existing literature on both the physical (e.g., Calkins, 2009) and sociocultural long-term care environments toward addressing RRA.

In terms of our method for achieving consensus on nomenclature and research priorities, the adoption of a modified Delphi method was appropriate, since it is useful for situations in which there is a lack of empirical evidence or when there are strong differences of opinion. Procedures such as using a first round of anonymous data collection (premeeting survey) were useful for building on the work and expertise of the panel members, who came from diverse backgrounds (e.g., medicine, nursing, social work, law,

gerontology, advocacy, psychology). However, using a Delphi process for achieving consensus neither means that the "correct answer" has been found (Keeney, Hasson, & McKenna, 2001) nor that a correct answer exists. The achieved consensus simply reflects an expert group's opinion and should be interpreted as such (Powell, 2003). As well, limitations include that the initiative was not a Delphi study per se; rather, elements from this approach were utilized to provide a structure for focusing the groups' efforts. Therefore, the resulting RRA nomenclature and definition and identified priorities may not be fully applicable or generalizable across all settings or professions. Despite this, the outcomes serve as a stepping stone for further consolidation of the field, and for raising awareness of the seriousness of RRA.

In conclusion, RRA is gaining recognition at both the national and international level as a significant public health problem impacting the safety and well-being of long-term care facility residents, which signals that efforts are underway toward finding solutions. Although media reports are a useful "lightening rod" for spurring action, a strong evidence base is needed to inform activities at the clinical, research, and policy levels and to exact meaningful, sustainable, and positive change to ensure that long-term care facility residents are free from physical and psychological harm.

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