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Applying Rigor: Intervention Studies for Behavioral and Psychological Symptoms of Dementia

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Researchers in the Netherlands have long been innovators in nonpharmacologic and service-based interventions for older adults. The GRIP intervention by Appelhof et al featured in this issue of AJGP is laudable. It targets the growing population of individuals with young-onset dementia (YOD) in facilities. However, despite strengths including a multidisciplinary team-based approach, a person-centered intervention that considered resident preferences, and a stepped-wedge study design, GRIP did not have any significant impact on behavioral and psychological symptoms of dementia (BPSD) or psychotropic medication use. Critics of non-pharmacologic trials often point to certain characteristics that appear to make them less rigorous than pharmacologic trials.

First, in a pharmacologic trial, typically one medication is compared to another or to a placebo. In the GRIP intervention, the care program did not include a standardized intervention, allowing “available options in the nursing home” and “resident preferences” to be considered. While this person- and nursing home-centered approach is commendable, the high degree of individualization clouds the ability to determine whether certain components of the intervention were more effective than others. The intervention appeared to overlap with current standards of care practices, and thus, left less room to improve outcomes.

Second, a key component of drug trials is determining an adequate dosage to achieve the desired outcome. While there have been a number of successful behavioral interventions with impact on BPSD, they may be hard to replicate in the “real world” as they require a “high dosage”: many sessions, highly trained research staff or clinicians, or resources not typically accessible in most settings (1–3). Conversely, in the GRIP intervention, leaving use of intervention tools to staff clinician discretion may not have provided sufficient dosage to see long-term change.

Third, pharmacologic trials are run in a highly controlled manner such that the effect may be attributed as clearly as possible to the drug. In the GRIP intervention, “prn” medication use was allowed but not recorded. In real-world clinical settings, we commonly see as needed psychotropics used as “knee jerk” reactions to BPSD, and not recording and including such “prn” (or “rescue” use) seems a critical omission. Further, it is a standard in drug trials that those rating clinical outcomes are blinded to participants’ intervention condition. In the current study, staff raters were unblinded. While more challenging, particularly in nursing

home settings where staff are involved, a non-internal rater may help reduce bias that may come from knowing and interacting with patient-participants.

A fourth challenging aspect of service-based interventions is that the intervention protocol may vary by the type of staff (e.g. physician, nurse, and psychologist). Understudied is how individual practitioners react to such interventions. As opposed to researchers trained to carry out study protocols, nursing home staff have worked in a facility for varying amounts of time, have competing time demands, and may have certain assumptions for what works to manage BPSD or what is most efficient. For example, staff of long-term care facilities often hold the belief that resident-decision making is acceptable only if not interfering with the efficiency of how the institution is run (4). While widespread dissemination requires that staff are able to carry out the intervention, and efforts to incorporate them early in the study process are important, service-based interventions must fit into normal work flow (unlike drug interventions) and staff's reaction to the intervention given held beliefs may be highly individual.

We are currently examining the management styles of family carers and believe that understanding the styles of formal carers is also key to implementing interventions in service-based settings. For example, one nurse may be new to a facility and eager to try new methods to improve the problematic behaviors he/she is seeing, whereas another may have worked in the facility for 20 years, be well-established in the routines and expectations of the system, and feel he/she already knows what works in addressing BPSD and that additional tools are an imposition to established workflow. It may be critical to assess how staff operate in the "real world" facility setting; for example, examining their beliefs (e.g. stance toward behavioral versus pharmacological intervention for BPSD), biases, levels of stress, motivation, level of buy-in from managers/supervisors, and current management practices before introducing an intervention. If a staff member feels their current management practices are already effective or that behaviors are inevitable, they may have less impetus to change their own behavior and adhere to an intervention. Uptake may be challenged if a clear benefit is not understood a priori. The recent National Summit on Dementia Care (5) endorses this idea (Theme 8, Recommendation 2): to "Conduct research to increase understanding about organizational readiness and capacity to implement and sustain evidence-based programs and services for persons living with dementia". Other barriers to implementation cited by the Summit include workforce issues, financial disincentives, and competing organizational priorities. Future work on the GRIP intervention to address these barriers or describe how these considerations were accounted for upfront could serve as a major contribution to the field.

We applaud Appelhof and colleagues for their innovative intervention and hope that continued efforts are made to identify mechanisms of change and to develop rigorous, individualized (but measurable by components and dose) behavioral interventions to address BPSD in service delivery settings. The holy grail of intervention science is finding something that works and can be sustained in real-world settings. To address BPSD in long-term care facilities, we need interventions: 1) using empirically and theoretically-driven models of change such that proven strategies are applied; 2) including individualized approaches to the intervention recipient as well as the deliverer; and 3) that can be applied to

usual care without added stress. While this makes non-pharmacologic trials more challenging than pharmacologic trials, individuals with dementia, staff, and facilities all stand to gain from these continued efforts.

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