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Mental Health Integration in Geriatric Patient-Aligned Care Teams in the Department of Veterans Affairs

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Abstract

Objectives: To inform geriatric mental health policy by describing the role of behavioral healthcare providers within a geriatric patient-aligned care team (GeriPACT), a patient-centered medical home model of care within the Veterans Health Administration (VHA), serving older veterans with chronic disease, functional dependency, cognitive decline, and psychosocial challenges, and/or those who have elder abuse, risk of long-term care placement, or impending disability.

Methods: The authors used mixed methods, consisting of a national survey and site visits between July 2016 and February 2017, at VHA outpatient clinics. The participants, 101 GeriPACTs at 44 sites, completed surveys, and 24 medical providers were interviewed. A standardized survey and semi-structured interview guide were developed based on the program handbook, with input from experts in the VHA Office of Geriatrics and Extended Care Services, guided by the Consolidated Framework for Implementation Science Research.

Results: Of surveyed GeriPACTs, 42.6% had a mental health provider on the team—a psychiatrist (28.7%) and/or psychologist (23.8%). Of these, the mean was 0.27 full-time

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Veterans Health Administration (VHA) Handbook 1058.05 provides guidance about authorization of manuscripts that have been developed through nonresearch activities (i.e., without institutional review board approval under the authority of VHA operations).³⁴ All VHA authors of this manuscript attest that the activities that resulted in producing this manuscript were not conducted as part of a research project, but as part of the nonresearch evaluation conducted under the authority of the Office of Geriatrics and Extended Care Services. The status of this work as quality improvement and not research was also confirmed following review by the research and development committee at the VA Boston Healthcare System. The authors have no disclosures to report.

equivalent psychiatrists and 0.44 full-time equivalent psychologists per team (suggested panel = 800 patients). In surveys, teams with behavioral health providers were more likely to manage psychosocial $\chi^2 = 8.87$, cognitive $\chi^2 = 8.68$, and depressive $\chi^2 = 1185$ conditions in their panel than those without behavioral health providers.

Conclusion: GeriPACT mental health integration is less than 50%. Population differences between general primary care and geriatric primary care may require different care approaches and provider competencies and need further study.

Keywords

Mental health; integrated delivery of care; primary healthcare; policy

INTRODUCTION

This paper examines integration of mental health into a geriatric primary care program in the U.S. Veterans Health Administration (VHA). Such integration falls at the intersection of two policy initiatives with confusingly similar acronyms. The first of these initiatives is the patient-centered medical home (PCMH),^{1,2} which is called a patient-aligned care team (PACT)³ in VHA and a geriatric patient-aligned care team (GeriPACT) when focusing on older adults.^{4,5} The second of these initiatives is primary care-mental health integration (PC-MHI).⁶ Characteristics of these initiatives are summarized below and in Table 1 and more extensively described in policy documents.

PCMH is a model of primary care, with practice innovations such as enhanced team-based longitudinal care and care coordination, which aim to improve quality and decrease costs,^{1,2} in contrast with episodic, illness-oriented, complaint-based care.⁷ In VHA, PACTs follow the PCMH framework and are associated with higher patient satisfaction and healthcare quality and lower hospitalization and emergency department use.⁸

GeriPACTs⁴ provide healthcare for a subset of older veterans with chronic disease, functional dependency, cognitive decline, and psychosocial challenges, and/or those who have elder abuse, risk of long-term care placement, or impending disability.⁹ GeriPACTs do not see all older adults but a high-risk subset; the vast majority (94%) are seen in non-age-specific PACTs.¹⁰ Although Geri- PACTs are relatively new, interprofessional approaches, care coordination, and care transitions have long been common components of geriatric care.¹¹ Older adults treated in similar integrated settings have fewer activities of daily living impairments,¹² greater life satisfaction,¹² and improved general mental health.¹³

VHA PACTs and GeriPACTs have prescribed “core” team members who are assigned to a single panel, with disciplines specified by policy, and “extended” team members—other clinicians involved as patient needs or local preferences dictate (Table 1).^{2,8} Mental health providers are “extended” team members in VHA PACTs and GeriPACTs and are not required by policy. Of note, this is in contrast to the VHA home-based primary care program (HBPC), which is a team-based model of primary care that follows PACT principles and serves a primarily geriatric population in patient residences.^{14,15}

Integration of Mental Health Into Primary Care

PC-MHI⁶ is a model of care in which mental health providers are co-located within a primary care setting and provide collaborative care and care management. The integration of mental healthcare into primary care settings increases the recognition of emotional distress, access to mental health treatment, and implementation of appropriate treatment.^{16–19} PC-MHI providers treat psychiatric disorders as well as behavioral aspects of medical conditions, such as diabetes,²⁰ insomnia, treatment adherence problems,¹⁸ and chronic pain,²¹ using brief (30-minute), time-limited (four to six), problem-focused sessions that might involve psychoeducation and psychopharmacology.

The integration of mental healthcare into primary care is particularly relevant for older populations. Three seminal trials—the Improving Mood: Promoting Access to Collaborative Treatment trial,²² the Primary Care Research in Substance Abuse and Mental Health for the Elderly study,^{23,24} and the Prevention of Suicide in Primary Care Elderly: Collaborative Trial²⁵—represent landmark studies regarding the value of mental health integration for the treatment of mental health conditions in older adults. These large-scale trials found that older adults are more receptive to mental health treatment in primary versus specialty care, integrated care is preferred by primary care clinicians, and an integrated care model is effective for treating depression and decreasing suicidal ideation among older adults.^{22–25}

To our knowledge, there are no studies that characterize the structure of mental healthcare providers within GeriPACTs or similar geriatric primary care programs implemented at a national level. The objective of this paper is to describe the role of psychiatrists and psychologists within VHA GeriPACTs to inform, as relevant, geriatric mental health policy within as well as outside VHA.

METHODS

Study Design

An observational study of GeriPACT characteristics was performed as part of an evaluation in collaboration with the Office of Geriatrics and Extended Care Services within VHA. The VA Boston Healthcare System's research and development committee determined that the work conducted for this study was quality improvement and not research. The evaluation included a survey and site visits. This paper focuses on only data related to mental healthcare within GeriPACTs, with other papers⁵ under review or in development focusing on other aspects.

Participants and Procedures

Survey: With guidance from the VA Office of Geriatrics and Extended Care Services, physician leaders from GeriPACT programs (N = 71) were contacted via email (with three reminders to nonresponders) to complete an online survey during July 2016. Responses were received from physician leaders at 44 sites, for a response rate of 62%.

Site visit: Sites (N = 8) were selected for 2-day site visits based on survey responses that indicated high adherence to definitions of PACT and team functioning. High adherence sites

were selected to understand best practices at hospitals with successful implementation to inform policy planning. Interviews of approximately 1 hour were conducted by two-person teams between October 2016 and February 2017. For the purposes of this paper, we have focused on interviews with 24 medical providers (consisting of physician leaders or other MD or NP providers). Our analyses did not focus on interviews with mental health providers, as they were interviewed at only three sites owing to limited inclusion as team members.

Measurements

Survey: A survey was developed by the project team based on critical components described in the GeriPACT program handbook,⁶ incorporating additional items from previous program surveys from the VHA Office of Geriatrics and Extended Care Services to assess the structural characteristics of GeriPACTs, including staffing, allocation of clinical space, panel size, patient enrollment procedures, conditions managed, services provided, and team member training. In this paper, we describe responses to three survey questions relevant to mental health within Geri- PACTs. First, participants indicated (yes/no) whether practitioners of various disciplines were core or extended (or neither) team members of GeriPACTs. For the purposes of this paper, we have focused on the presence of a psychiatrist and psychologist, as we asked only about these mental health disciplines. Second, participants assigned full-time equivalent (FTE) employee effort for each discipline on the team. Third, participants indicated (yes/no) whether specific conditions (psychosocial issues, dementia, and depression) were managed within their GeriPACT and, additionally, whether the condition was considered an area of expertise within the GeriPACT. The survey was programmed using Enterprise Feedback Management (EFM) version 15.1. web-based software (Verint Systems Inc., Melville, NY), and data were analyzed in SAS (SAS Institute Inc., Cary, NC) version 9.3.

Interview: A semi-structured interview was developed by the project team to inquire about the structural characteristics of GeriPACT implementation, guided by the Consolidated Framework for Implementation Science Research.²⁶ There was not a question that asked specifically about mental healthcare, but 16 of the 24 medical providers, encompassing all eight sites, referred to psychiatric or psychological healthcare/providers in a total of 44 comments.

Statistical Methods

Descriptive statistics (N, percent, mean) describe survey responses. Conditions treated and areas of expertise were compared between sites with and without psychiatrist/psychologist providers using χ^2 analyses. To determine the FTE per panel, we divided the psychiatrist/psychologist FTE reported for each site by the GeriPACT panel size reported for the site (combining across all teams). Next, to convert this number to an average FTE consistent with national panel benchmarks, per VHA policy, we multiplied it by 800. This provides an estimate of FTEs per panel, given current mental health staffing level estimates, if each team is at capacity. Within the VA, one FTE is equivalent to 2,080 hours per year.²⁷

For qualitative data, two authors (JM, GH) read interview transcripts, focusing attention on responses that included the words *psychiatrist*, *psychologist*, *psychiatry*, *psychology*, and *mental health*. One team member coded responses into emergent categories, and a second team member reviewed and confirmed coding (no discrepancies noted) using Excel (Microsoft Corporation, Redmond, WA). So as not to overrepresent one participant, codes were assigned only once per participant. Exemplar responses were selected for inclusion, with minor edits to enhance readability.

RESULTS

Sample and Program Characteristics

Across the 44 survey sites, there were 101 Geri- PACTs, with 55% of sites having more than 1 team. These teams provided care to 32,408 unique patients through 148,510 encounters (mean: 4.58, standard deviation: 4.62 visits per year), with a mean patient age of 82.4 (standard deviation: 8.34), in fiscal year 2016. Locations of GeriPACTs varied, with 27.5% describing no dedicated space (clinic space shared), 28.6% describing co-location with other PACTs, 37.4% describing co-location with other geriatric specialty clinics, and 6.6% describing other space configurations. Of the eight sites visited, four were co-located with PACTs and four were co-located with geriatric specialty clinics (e.g., “falls clinic,” “stroke clinic”).

Psychiatrist/ Psychologist Inclusion in GeriPACTs

Across all sites (N = 101), fewer than half (n = 43; 42.6%) reported having a psychiatrist or psychologist on the team, with 16 (15.8%) reporting both a psychiatrist and a psychologist, 13 (12.9%) reporting a psychiatrist only, and 14 (13.9%) reporting a psychologist only. These clinicians were most often described as extended team members (26 of 29 [89.7%] sites with a psychiatrist, 24 of 30 [80.0%] with a psychologist). Sites reporting a psychiatrist (n = 29) team member were more likely to be on a GeriPACT that was physically co-located with a geriatric specialty clinic (n = 19 [65.5%]) than with another PACT (n = 7; χ^2 [3,91] = 16.52, p = 0.009); this was similar to sites reporting a psychologist (n = 30) team member (n = 19 in geriatric specialty [63.3%] versus n = 4 in PACT; 13.3%; χ^2 [3,91] = 13.62, p = 0.004). FTE estimates for sites with psychiatrist/psychologist team members were 0.27 FTE psychiatrists and 0.44 FTE psychologists per panel of 800 (Table 2).

Roles of Mental Health in GeriPACTs

The majority of GeriPACTs manage psychosocial issues, dementia, and depression (Table 3). Those teams with psychiatrist/psychologist team members are more likely to endorse management and expertise in psychosocial issues and dementia/cognitive disorders and management (but not expertise) in depression. For teams with psychiatrist/ psychologist providers, respondents most frequently reported expertise in dementia (81.4%) and least frequently reported expertise in depression (65.1%).

In interview data, mental healthcare was described as provided by a team member or as a referral service. Responses also addressed limitations in mental health coverage.

Mental health provider as team member: Medical providers spoke about having access to mental health providers as part of their team or extended team, referring to a psychiatrist (N=4) or psychologist (N=2) or geriatric psychiatrist (N=3) or geropsychologist (N=1) or in some cases using the ambiguous term *psych* (2). One provider specifically mentioned PC-MHI. Examples of these responses are as follows:

- “[G]eriatric psychiatrist, she’s available all the time for me if I need some questions or resources so she guides me very well.” (S8)
- “[A]nd we’ve always had mental health presence usually in the form of both psychiatry and psychology, which I know is very rich and we’re fortunate and we’re lucky.” (S15)
- “[S]o in our clinic, we have primary care mental health integration ... and so we can do a warm hand-off and then either the social worker or psychologist will do an intake.” (S11)

Mental health as referral service: Providers also spoke about referring patients to mental healthcare—often psychiatry (N=4) or geriatric psychiatry (N=1). One person spoke about having mental health as both an integrated team member and a referral service, with referrals for medication purposes:

- “[B]ut we do try to arrange, at least on the same day, if patients are going to see specialty people like orthopedics or cardiology or psychiatry, particularly if they come from a distance.” (S3)
- “[W]e can place the consult for the psychiatry.” (S14)

Limited or loss of mental healthcare: Some providers also noted changes or limitations in mental healthcare. Three participants noted they had previously had mental health providers on their team but lost them. Other concerns related to limited time with or scope of mental health (e.g., won’t see patients with dementia) or absence of mental health altogether:

- “[I]n mental health if they have a diagnosis of dementia, they’re not allowed in the door.” (S20)
- “[W]e have a psychiatrist but we don’t have a psychologist.” (S23)
- “[W]e did actually have an older adult geripsy- chiatrist for a while ... She was excellent ... I think she actually moved to another VA and we, they didn’t have anybody so actually most of our patients ... we just took out that clinic because there was actually no provider.” (S19)

DISCUSSION

This paper examines psychiatry/psychology integration in the VHA GeriPACT program. The main findings are the following: 1) less than half of Geri-PACTs reported psychiatry/psychology providers on the team; 2) those who did reported greater management of psychosocial, cognitive, and depressive conditions; and 3) the structural characteristics of

psychiatrist/psychologist integration varied widely. These data raise several important and interrelated policy questions regarding the mental health needs, provider competencies, and program structure of mental health integration into geriatric primary care in both VA settings and settings outside VA. We will next discuss policy questions in the context of our data as well as additional studies needed to answer these questions.

What are the mental health needs of older adults in primary care, and do they differ for older adults seen in PACT versus GeriPACT settings?

To fully evaluate the suitability of the structural characteristics of program implementation for addressing patient needs, we need more data on those needs. We can extrapolate from epidemiologic studies of the prevalence of mental health disorders in older adults²⁸ and older veterans.²⁹ However, in a world with unlimited research funding, it would be helpful to have observational cohort data specific to the mental health comorbidities of older adults in the VHA primary care setting, comparing PACTs versus GeriPACTs. Such studies could utilize prospective (e.g., interviews with randomly selected patients) or retrospective approaches (e.g., review of diagnoses entered in primary care encounters). We hypothesize that the mental health needs of older adults in these two settings vary owing to the program criteria for GeriPACTs selecting for higher multimorbidity, cognitive and functional compromise, elder abuse, etc.

What are the provider disciplines and competencies needed to treat these conditions, and do they differ for older adults seen in PACT versus GeriPACT settings?

Having a clearer sense of the mental health needs of older adults in these programs would allow for recruitment of providers with matched competencies as well as continuing education to enhance relevant competencies. Our study did not examine provider mental health competencies, although our data suggest that GeriPACTs with integrated psychiatrists and psychologists feel better prepared to manage patients with psychosocial issues, dementia, and depression, and are more expert in psychosocial issues and dementia, but not depression. It is unclear if the lack of expertise in depression represents a meaningful finding or a power issue given a small to medium effect size.³⁰ However, if meaningful, it suggests that psychologist and psychiatrist providers in these geriatric settings had relatively greater expertise in neurocognitive disorders than mood disorders. Mental health providers in geriatric primary care may be drawn from distinct subspecialties with different emphases—for example, geriatric psychiatry/geropsychology, neuropsychiatry/neuropsychology, and consultation liaison psychiatry/health psychology. Some of these subspecialties may emphasize neurocognitive disorders while others may focus on other competencies.

Additional studies could provide policy direction related to mental health provider competencies. Studies could evaluate self-perceived geriatric mental health competencies and/or continuing education needs of mental health providers³¹ in PACTs versus GeriPACTs. Both of these types of studies are limited by provider self-report but would nevertheless provide some evidence-based direction going forward.

What is the program structure that best meets the mental health needs of older adults, and do ideal structural characteristics differ for older adults seen in PACT versus GeriPACT settings?

Program structure includes team member discipline, FTE by discipline, program alignment (e.g., under primary care or geriatrics), and care structures (e.g., frequency and length of patient visits). In this study, 42.6% of GeriPACTs reported having a mental health team member as either a core or extended team member. In contrast, other VHA primary care programs report higher mental health integration at 86.3% of VHA primary care practices³² and 87.1% of VA HBPC programs.¹⁴ In this study, GeriPACTs reporting mental health providers on their teams were more likely to be those located in geriatric specialty clinics—perhaps suggesting the presence of mental health providers specific to GeriPACTs and the care of older adults. Levels of mental health integration in GeriPACTs commensurate with those of traditional PACTs and HBPCs would seem to represent a benefit (both in terms of quality and cost of care) in the presence of multiple geriatric syndromes—potentially including neurocognitive disorders and mood disorders in this population. GeriPACT programs were estimated to have an average of 0.27 FTE psychiatrists and 0.44 FTE psychologists per 800-patient panel, which translates to approximately 1.0 psychiatrists per four panels and 1.0 psychologists per two panels. We did not collect data to specifically assess if this FTE-to-patient ratio is adequate.

Future studies could provide more direction. We relied upon physician leader reports of mental health provider structure and FTE, which have value in providing provider perspective. However, future studies could gather FTE reports from objective sources and examine these in relation to other variables, such as location of clinics, panel complexity, and frequency of mental health encounters. In addition, studies might examine age and morbidity-adjusted healthcare quality indicators as well as barriers and facilitators to assess adequacy of mental health access and care in PACTs versus GeriPACTs.

Integrating mental healthcare into primary care is appealing for engaging older adults in mental health treatment.^{22–25} There are different models of integrated mental healthcare; some focus on mental health treatment of psychiatric disorders (e.g., depression, substance use, suicide prevention),^{22–25} whereas others focus on behavioral health treatment of medical conditions (e.g., diabetes, insomnia, pain).^{18,20,21} Given time constraints within primary care and the complexity of geriatric patients, future studies may also consider ways in which integrated mental health practices with GeriPACT populations differ from other settings. For example, GeriPACT mental health providers likely need a longer visit length given patient complexity, ambulatory and sensory changes, greater involvement of families and caregivers, etc. Thoughtful stepped-care models³³ may be useful for confronting these complexities and adapting the model to the realities of the individual healthcare institution and geriatric workforce shortage. To this point, no single model has emerged as a best practice, and this needs further study. Importantly, the questions we raise here consider the ideal structures for mental health integration in GeriPACTs. However, these structural considerations need to consider the broader context of what structures are best for the entire set of care being provided (medical, nursing, rehabilitation, social) and optimize the unique strengths of individual sites. One size will not fit all.

Limitations

There are multiple limitations in this study. We looked at only mental health providers identified as psychiatrists or psychologists and did not assess the roles of other mental health professionals, such as psychiatric clinical nurse specialists or clinical social workers. Further, this study was designed to look at general characteristics of GeriPACTs, not to specifically examine mental healthcare. A study focused specifically on mental healthcare could have included specific questions about the exact meaning of “team member” as well as successes of and barriers to mental healthcare in Geri- PACTs. Further, we relied upon physician leader reports regarding mental health provider structure and FTE, and these were not adjusted for panel complexity. Also, only 62% of the sample responded to the survey, so results may not be representative of all programs. In addition, we did site visits with a small number of high-adherence programs, which are not representative of all programs.

CONCLUSION

To our knowledge, this is the first study to provide a snapshot of mental health integration into geriatric primary care programs in a national healthcare system. Albeit limited, it provides important early documentation to suggest that mental health integration is less than 50% in 2016 but, when present, may provide advantages in the management of certain healthcare conditions. VHA is advanced compared with the U.S. private sector in its goal of providing a patient-centered medical home model to all veterans (with ready access to mental healthcare) and in its efforts to elaborate these models for specific populations, older adults in particular. Further investigation and articulation of models of mental healthcare integrated into geriatric primary care represent a fertile area for the development of geriatric mental health policy.

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Highlights

- This study investigates the integration of mental health into a geriatric primary care program (i.e., geriatric patient-aligned care team) within the U.S. Veterans Health Administration.
- Less than half of geriatric patient-aligned care teams include psychiatrist/psychologist providers and do so under various models of care.
- Teams with psychiatrist/psychologist providers were more likely to endorse management of psychosocial issues, dementia, and depression, indicating a potential benefit of including mental health providers on teams.
- Population differences between general primary care and geriatric primary care may require different care structures and provider competencies.

TABLE 1.

Key Program Descriptions

Acronym	FullTitle	Brief Definition	Team Structure
PCMH (1,2)	Patient-centered medical home (not specific to VA)	Primary care practice innovation with enhanced team-based care and care coordination and other practice innovations.	Core team: varies.
PACT (3)	Patient aligned care team (VA version of PCMH)	A model of primary care that is patient-centered, data driven, continuously improving, team-based, accessible, timely, comprehensive, coordinated, and provides continuity of care over time.	Core team: MD/DO/PA/NP provider, registered nurse, clinical associate, administrative associate.
GerIPACT (4,5)	Geriatric patient-aligned care team (VA version of PCMH focusing on older adults)	A VA PACT focusing on older adults with multiple chronic diseases, coexisting cognitive and functional decline as well as psychosocial factors.	Core team: MD/DO/PA/NP provider, registered nurse, clinical associate, administrative associate, clinical pharmacist, social worker.
HBPC (14,15)	Home-based primary care (VA PACT-like program in the patient's home)	A model of comprehensive, longitudinal primary care provided by a physician-supervised interdisciplinary team of VA staff in the homes of veterans with complex, chronic, disabling disease, for whom routine clinic-based care is not effective.	Core team: physician, nurse, social worker, rehabilitation therapist, pharmacist, and dietitian. A psychologist or psychiatrist is also required per separate mental health policy.
PC-MHI (6)	Primary care-mental health integration (VA and non-VA programs)	A model of mental health care within VA PACT that provides collaborative care and care management of mental health conditions.	Per VA policy, provider may be a social worker, psychiatric nurse, psychiatrist, or psychologist.

Notes: The core team is assigned to a single panel and defined per VA policy.

TABLE 2.

FTE for Psychiatry and Psychology

Discipline	n	Mean ^a	SD	Mean FTE Adjusted per Patient ^b	Estimated FTE per 800 Patients ^c
Psychiatry	18	0.20	0.21	0.00034	0.27
Psychology	17	0.24	0.25	0.00055	0.44

Notes: Data were missing for 11 teams with a psychiatrist and 13 teams with a psychologist;

FTE calculated only for teams who reported a psychiatrist or psychologist team member and provided an FTE estimate. SD: standard deviation.

^aColumn 2 mean is an average of the FTE number reported by each director. Site directors provided estimates of FTE assigned to the GeriPACT program in total—across all teams. Column 2 mean was adjusted by dividing the FTE reported by each director by the number of patients enrolled at each site in fiscal year 2016.

^bColumn 4 the mean was adjusted by dividing the FTE reported by each director by the number of patients enrolled at each site in fiscal year 2016. To provide an estimate of the FTE per panel, the number in column 4 was multiplied by 800—the national policy recommended panel size per full-time provider.

^cTo provide an estimate of the FTE per panel, the number in column 4 was multiplied by 800—the national policy recommended panel size per full time provider.

TABLE 3.

Conditions Managed by and Areas of Expertise of the GeriPACT Team

	All Teams (N = 101) (%)	Teams With MH ^a (n = 43) (%)	Teams With No MH (n = 58) (%)	χ^2	p ^b
Psychosocial issues	82.2	95.3	72.4	8.87	0.003
Expertise: psychosocial issues	59.4	72.1	50.0	5.00	0.025
Dementia or other cognitive disorder	79.2	93.0	69.0	8.68	0.003
Expertise: dementia or other cognitive disorder	69.3	81.4	60.3	5.14	0.023
Depression	79.2	95.4	67.2	11.85	0.001
Expertise: depression	54.5	65.1	46.6	3.43	0.064

^aTeams with MH = teams with psychiatrist or psychologist as core or extended team member.^bAll p values calculated using df = 1, N = 101.