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Measuring Gerontological Research Intensity in Schools of Nursing

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Abstract

Because of the urgent need for more gerontological nursing research, it is critical for more schools of nursing to develop research-intensive environments within which faculty can develop programs of gerontological nursing research. Unfortunately, many schools have limited resources for developing the needed infrastructures and for acquiring the required expertise in gerontology and research. Many also lack the expertise and methods for assessing their current status so they may increase their gerontological nursing research intensity. To help schools assess their status and gaps in the essentials required for a research-intensive environment and gerontological nursing research, an instrument was developed to measure benchmarks of research intensity; it is described in this article. Initial results of pilot testing of the instrument, the revised instrument, and plans for future research are presented. Uses of the instrument for assessing and strengthening a school's research infrastructure and culture and for assisting with the development of faculty programs of gerontological nursing research are also discussed.

Despite numerous reports of the need for gerontological nurse faculty in schools of nursing and for research to support best gerontological nursing practices, the majority of nurse faculty in schools of nursing have no specific training in gerontological nursing. For example, 58% of baccalaureate nursing programs have no full-time faculty certified in geriatric nursing (Fulmer & Mezey, 1994; Kovner, Mezey, & Harrington, 2002). Many schools of nursing, even those in universities designated by Carnegie Foundation for the Advancement of Teaching as having high or very high research activity, have few faculty members with programs of research in gerontological nursing.

The shortage of nurse scientists with active programs of gerontological research limits the number of faculty needed to prepare future gerontological nurses, particularly those with PhDs who will assume faculty positions. This constraint on the number of gerontological

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nurse faculty further limits the number of nurses with gerontological nursing training to care for older adults and the number who will pursue advanced gerontological nursing degrees for careers as nurse scientists and educators (Mezey & Kovner, 2003). Relatively few schools of nursing currently have a substantial cadre of research-productive gerontological nurse scientists. These circumstances are of particular concern in view of the Institute of Medicine's (2008) warning that the nation faces a future with too few health care workers who also lack the needed preparation to meet the needs of older adults. Efforts such as the one reported in this article and the first annual Gerontological Nursing Academic Capacity Survey (2009) are useful means to inform and encourage greater nursing capacity to meet current and future needs of older adults (Buckwalter, 2009).

Of those schools with faculty who have active programs of research in gerontological nursing, the research tends to be discrete studies completed by single investigators or small, single-site studies. Nurse-led, multisite, interdisciplinary gerontological studies remain rare. This limits opportunities for program grants (e.g., P20 Exploratory grants, P30 Center Core grants) that are important mechanisms for schools to use to further develop faculty programs of research.

In many schools of nursing, much of nursing research in gerontology is conducted without the benefits of collaboration with and mentorship by colleagues who have common or similar research interests. Junior faculty with a gerontological nursing research focus often lack the seasoned disciplinary and interdisciplinary colleagues and mentors needed to develop the skills and experience for a successful research career.

The Carnegie Foundation for the Advancement of Teaching classifies universities as RU/VH: Research Universities (very high research activity), RU/H: Research Universities (high research activity), or DRU: Doctoral/Research Universities. In many schools of nursing, however, including some of those in Carnegie RU/VH and RU/H universities, the research infrastructure, culture, and intensity are lacking to adequately support and build programs of gerontological nursing research. Although an increasing number of gerontological nurse scientists are testing interventions and producing research findings critical for evidence-based practices and improving outcomes for older adults, there are still too few, and many are close to retirement.

Because of the urgent need for more gerontological nursing research, there is a corresponding need for more schools of nursing to develop research-intensive environments within which faculty can develop and progress their programs of gerontological nursing research. Unfortunately, many struggle with limited resources for developing the needed infrastructures and for acquiring the required expertise in gerontology and research. Many also lack the expertise and methods for appropriately assessing their current status to develop a research-intensive environment. To help schools assess their status and gaps in the essentials required for a research-intensive environment, an instrument developed to measure benchmarks of research intensity is described in this article. Uses and plans for additional testing of the instrument are also discussed.

THE RESEARCH INTENSITY SCALE

The Research Intensity Scale (RIS) is a revised 37-item version of an instrument developed to measure the research intensity and development needs of schools of nursing participating in The University of Iowa College of Nursing Gerontological Nursing Interventions Research Center (GNIRC)/Hartford Center of Geriatric Nursing Excellence (HCGNE) Regional Training Core (RTC). Research intensity and capacity are generally understood concepts in universities, as are the indicators by which the research intensity or strength in academic units is judged (Weiler, Guri-Rosenblit, & Sawyer, 2006).

The original RIS contained 27 items based on these generally recognized criteria. The items addressed the mission of the university, mission of the school of nursing, school of nursing research office staff, the faculty director of the research office, internal pilot funding, faculty expectations for research, faculty research development, grant review processes, faculty research programs, faculty gerontological nursing research programs, faculty teaching assignments, research funding, faculty publications, research presentations, leadership career development, national and international recognition of faculty research, and overall rating of gerontological nursing research intensity. Each item is rated on a 3-point Likert scale (1 = *low intensity* to 3 = *high intensity*), with each score for each item anchored descriptively. The low-intensity anchors generally describe benchmarks of no or very little emphasis on research by the university and/or school of nursing; few, if any, resources dedicated to research; and very low levels of faculty research and scholarship expectations and productivity. High-intensity anchors, conversely, describe benchmarks indicating that research is a valued mission of the university and school with substantial resources devoted to the support of faculty research, high expectations of faculty for externally funded research and scholarship, and extensive faculty productivity and career success, including in gerontological nursing.

Prior to the development of the RIS, the participating schools in the RTC were assigned to groups defined as *Development Schools*, *Peer Schools*, and *Intensive Schools* by the GNIRC/HCGNE Directors and Associate Directors to tailor programming offered by the RTC to meet their specific needs in increasing programs of gerontological nursing research. The categorization was primarily based on the Directors' general knowledge of each school and its faculty and whether or not faculty had received externally funded research in gerontological nursing.

Development schools were those with underdeveloped research infrastructure and little, if any, known faculty research in gerontological nursing. These schools were therefore judged to be in need of substantial assistance with building the research culture, infrastructure, and training to support faculty in initiating and extending gerontological nursing programs of research. *Intensive schools* were those where a number of faculty were known to have funded programs of gerontological nursing research and were thus judged to have the most exhaustive and concentrated research supports and a rigorous research culture. *Peer schools* were those placed in a middle category, and most were known to have developed research infrastructures and cultures, but a small number (one or two) of gerontological nursing faculty with successful programs of research in gerontological nursing. All of the Peer schools were located in RU/VH or RU/H universities and were working to increase the number of faculty with funded programs of research with older adults.

To more specifically identify the needs of the schools participating in the RTC and to plan the appropriate program strategies to help them develop faculty research in gerontological nursing, the Directors recognized that benchmarks of research strength were required. First, benchmarks for defining schools of nursing with rich, rigorous, and productive research environments were generated. These benchmarks were reviewed by the Directors and Associate Directors and discussed until there was 100% agreement on their content. At this point, the Directors noted that an instrument could be developed that would be helpful in assessing a school's research intensity with little additional effort. The benchmarks were used to form the items and the anchors for the scores indicating "highest gerontological research intensity." Anchor statements were then developed for scores indicating "low gerontological research intensity" and "moderate gerontological research intensity" for each item. The descriptive statements for the three levels of intensity for each item were then synthesized to form the anchors for each item score.

The 27-item RIS was used to survey the 18 schools of nursing participating in the RTC. The survey was sent to the RTC site faculty liaison with instructions to complete and return the questionnaire. The correspondence accompanying the survey instrument informed the respondent that completion of the questionnaire indicated consent to participate. When the completed questionnaire was returned, the rating of each item was entered into a Microsoft® Excel® spreadsheet, and total scores were calculated.

With a possible total score range of 27 to 81, it was arbitrarily predetermined by the GNIRC Directors, on the basis of their experience and expert judgment, that scores for gerontological nursing research intensity would be as follows:

- 27 to 51 = Development schools.
- 52 to 76 = Peer schools.
- 77 to 81 = Intensive schools.

Fourteen of the schools returned completed surveys, for a 78% response rate. The total score for each school was compared by the Directors with the categorization of the school as Intensive, Peer, or Development. Interestingly, the scores arranged the majority of schools in the same categories of intensity as previously and independently rated by the Directors and Associate Directors (Table). Unfortunately, none of the three schools of nursing serving primarily African American students previously designated as Development schools returned completed RIS surveys.

As anticipated, Development schools tended to have low levels of research intensity in general, as well as a low level of gerontological nursing research intensity. Most Peer schools that responded (8 of 9) were research intensive in general but tended to have one or two active gerontological nurse researchers. One school that was categorized as a Peer school but is highly research intensive in areas other than gerontological nursing had a total score of 79, which is in the Intensive school range, and one previously categorized Development school that had been working hard to increase faculty programs of research in gerontological nursing had a total score of 66, which is in the Peer school range. All three previously designated Intensive schools returned completed surveys, and all were clearly research intensive in gerontological nursing.

Because of the small number of schools in which a site liaison completed the instrument, further analysis was not possible. However, on the basis of the survey results and statistical consultation, 10 new items were added to the survey to increase its discrimination and sensitivity (Figure). The need for greater discrimination and sensitivity was clear in rating and categorizing schools as gerontological nursing research intensive. Some schools are clearly highly research intensive but not in gerontological nursing research. This made it possible for a school to be rated as research intensive but not in gerontological nursing. The original benchmark elements of the instrument remained unchanged, but the number of items and scoring were revised so no school could be categorized as gerontological research intensive if it had a score of 3 on fewer than 8 of the 11 gerontological nursing research items.

One open-ended item requesting respondents to describe factors believed to prevent the school and faculty from increasing gerontological research intensity, if any, was also added. The possible range of scores on the revised instrument is 37 to 111, with higher scores indicating greater research intensity: 37 to 55 = Development schools, 56 to 81 = Peer schools, 82 to 111 = Intensive schools, with a score of 3 required for at least 8 of the 11 gerontological nursing items, and a score of 2 on all remaining items required for schools categorized as gerontological research intensive.

USES OF THE RESEARCH INTENSITY SCALE

Several uses of the RIS have been identified, including assessment of schools' needs in developing or strengthening its research infrastructure and culture, assessment of faculty development needs for establishing and progressing their programs of research, identification of strengths and weaknesses of the school and faculty, and measurement of schools' status and progress over time in strengthening research infrastructure and culture. Evaluation of the progress of individual faculty research and scholarship over time, assistance to the school and faculty with strategic goal setting and strategies, and recognition of areas of development where strategic partnerships and alliances are desirable are also potential uses of the tool.

The RIS unbundles the elements required if a school is to optimally support faculty research and provides a measure of the intensity of each. This helps school administrators and faculty identify strengths and weaknesses and establish strategic priorities for goals and actions. The total score and evaluation of individual items can be used to evaluate and refine approaches that will best help a school increase its gerontological nursing research intensity; they can also be easily revised to assess overall research intensity or intensity in nursing focal areas other than gerontology. The tool focuses attention on areas of greatest need for development or strengthening by quantifying the status of intensity for the school and for each benchmark element, as well as progress over time. These data can be used to negotiate the resources needed to increase faculty productivity and the overall research intensity of the school.

The survey also has important uses for individual faculty members. A review of the instrument is useful in acquainting faculty with expectations in a highly research-oriented school and in enlisting engagement in building and sustaining a research-intensive culture. The tool clarifies and can help build consensus among faculty about what is required in the school and of faculty. The RIS is also helpful to individual faculty in understanding and planning a career trajectory as a nurse scientist and leader. Finally, prospective faculty who desire a research career in gerontological nursing (or in other areas of nursing concentration, if the tool is adapted) can use the items to informally assess opportunities and match them with their career goals.

FUTURE PLANS FOR THE RESEARCH INTENSITY SCALE

Plans are underway for additional testing of the RIS by surveying all schools of nursing with PhD and other research-focused doctoral programs in the United States. Assessing the psychometric integrity and usefulness of the instrument is important for confidence in its use.

SUMMARY

There is a sense of urgency among nurse leaders to increase the number of nurses with PhDs for faculty positions and to speed the development of nursing science to inform nursing practice and education. This need is apparent for the health care of the older population, which is rapidly increasing compared with other population age cohorts. However, the need to build greater research capacity also exists for the nursing profession to expand knowledge for practice with other populations, to support best practices education, and to prepare faculty for schools of nursing, especially schools that are or strive to be research intensive.

Many more schools of nursing must become optimally research productive to achieve the research capacity needed by the discipline. The RIS provides a measure of research intensity that can be used by schools of nursing to assess and build the benchmarks of research-

intensive infrastructure, culture, and productivity needed to increase the research capacity of the nursing discipline.

We invite comments from readers about the potential usefulness of the RIS. We also encourage schools of nursing and faculty to complete the RIS for self-evaluation and to share the results and comments with us. We are especially hopeful that schools and their gerontological nurse faculty will use the RIS to evaluate and strengthen gerontological nursing research intensity, respond to a survey if asked to help with further testing of the tool, and share any suggestions for refinement of the tool so that it is most useful.

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Directions: Please consider carefully the extent that your school of nursing has developed its research capacity and circle the number above one of the three descriptions for each item that best describes the circumstance for your school.

Item #	Indicators of Intensity and Scale		
	<u>Mission of University</u>		
1.	1 University does not have a research mission	2 University research and teaching missions have equal priority and value	3 University research and teaching missions have equal priority, but externally funded research is very highly valued
2.	1 University does not base tenure on research productivity	2 University includes research productivity as important basis for promotion and tenure	3 University requires external funding of research for promotion and tenure
	<u>Mission of School</u>		
3.	1 School does not have a research mission	2 School has research mission but in practice, teaching mission is higher priority	3 School research and teaching missions are of equal priority and value
4.	1 School does not base tenure on research mission	2 School includes research productivity as important basis for promotion & tenure	3 School requires external funding of research for promotion and tenure
	<u>Office of Research</u>		
5.	1 School has no dedicated office of research	2 School has office of research but it is not solely dedicated to support faculty in obtaining external funding	3 School has organized and dedicated office of research that fully and solely supports faculty development of funded programs of research
6.	1 Databases of faculty productivity are not maintained	2 Databases of faculty productivity (research & publications) are maintained	3 Databases of faculty productivity (research & publications) are maintained and reported internally and externally at least annually
	<u>Research Office Staff</u>		
7.	1 No staff are dedicated to the support of faculty research	2 One staff person is dedicated to support faculty research	3 At least 2 staff persons are dedicated to the support of faculty research
8.	1 Staff provide grant processing support only	2 Staff support includes grant processing, biosketch maintenance, and notices of grant opportunities	3 Staff support includes grant processing, biosketch maintenance, notices of grant opportunities, editing assistance, budget assistance, IRB assistance
9.	1 No statistical staff support is provided.	2 Statistical support is contracted from other university departments.	3 At least 1 statistician is on staff and dedicated to statistical support for faculty research

10	<u>Director/Associate Dean for Research</u> 1 There is no appointed Director/Associate Dean for Research	2 Director/Associate Dean for Research does not meet regularly with all tenured & tenure-track faculty to mentor their research development and progress	3 Director/Associate Dean for Research meets with tenured and tenure-track faculty at regular intervals to mentor their development and progress with their research trajectory
11.	1 Faculty know little, if anything, about research priorities, guidelines, and review process of external agencies	2 Faculty have some knowledge about review guidelines, research priorities, and review process of external funding agencies	3 Faculty are kept fully informed about review guidelines, research priorities, and review processes of external funding agencies
12.	<u>Internal Pilot Funds</u> 1 No internal pilot funds are available in University or School	2 University pilot funds are available	3 University and School have funds available for pilot studies
13.	<u>Faculty Expectations for Research</u> 1 No expectations for tenured and tenure-track faculty to develop programs of research	2 Tenure and tenure-track faculty have explicit expectations to develop programs of research	3 Tenured and tenure-track faculty have explicit expectations to develop programs of research that progress to external funding
14.	1 There are no expectations for faculty to develop interdisciplinary programs of research	2 Faculty are encouraged to participate in interdisciplinary programs of research	3 There is an explicit expectation that faculty participate in, develop, and direct interdisciplinary programs of research
15.	<u>Faculty Research Development</u> 1 Faculty do not have written plans for research development	2 Some faculty have explicit short and long term plans for research and scholarship	3 All tenured and tenure-track faculty are required to have an explicit, written plan for research and scholarship
16.	1 No programs focused on the development of faculty research and grantsmanship skills are provided	2 Faculty are supported to attend research seminars, journal clubs, and grant management programs offered in the University or an external agency	3 Faculty are supported to attend research seminars, journal clubs, and grantsmanship programs offered in the University, external organizations, and the School
17.	<u>Grant Reviews</u> 1 No system for review and critique of faculty research proposals is provided	2 Faculty are encouraged to have their research proposals reviewed and critiqued by one or more colleagues prior to submission for funding	3 All faculty research proposals are mock reviewed prior to submission for funding
18.	<u>Research Culture</u> 1 Overall, there is little or no evidence that faculty value research and scholarship	2 There is evidence that school administration and most tenured and tenure-track faculty highly value faculty research and scholarship	3 There is an ambiance of high value of research productivity, scholarship excitement, and celebration of research scholarship throughout the School

19.	<u>Faculty Nursing Research Programs</u> 1 No gerontological nursing active programs of research	2 Two to four faculty have externally funded gerontological nursing programs of research	3 More than four faculty have externally funded gerontological nursing programs of research
	20. 1 No gerontological nursing faculty are sought by scientists in other disciplines as research collaborators	2 Two or fewer gerontological nursing faculty are sought by scientists in other disciplines as research collaborators	3 Three or more gerontological nursing faculty are sought by scientists in other disciplines as research collaborators
	21. 1 No faculty person is a member of an interdisciplinary gerontological research team	2 One to three faculty persons are members of an interdisciplinary gerontological research team	3 Three or more faculty persons lead an interdisciplinary gerontological research team
	22. 1 No gerontological nursing faculty have national and international reputations for their programs of research.	2 One to three gerontological nursing faculty have national and international reputations for their programs of research.	3 Three or more gerontological nursing faculty have national and international reputations for their programs of research.
	23. 1 No NIH T32, P30, or P20 gerontological nursing or aging grant has been funded in the school.	2 At least one NIH T32, P30, or P20 gerontological nursing or aging grant has been funded in the school	3 At least two NIH T32 or P30 gerontological nursing or aging grants have been funded in the school
24.	<u>Faculty Teaching Assignments</u> 1 All faculty teach more than the equivalent of two, 3 s.h. courses per semester	2 Tenured and tenure-track faculty with active programs of research teach fewer credit hours than faculty who do not have active programs of research, but they teach more than two, 3 s.h. courses per semester	3 Tenured and tenure-track faculty teach fewer credit hours than nontenure-track faculty, but no more than the equivalent of two, 3 s.h. courses per semester
	25. 1 New tenure-track faculty do not receive reduced teaching assignments	2 New tenure-track faculty receive reduced teaching assignments during their first semester of employment	3 New tenure-track faculty receive a reduced teaching assignment during the first year of employment
	26. <u>Research Funding</u> 1 School ranks 50 th or lower in NIH funding	2 School ranks 25 th to 49 th in NIH funding	3 School ranks 24 th or better in NIH funding
27.	<u>Publications</u> 1 Tenured and tenure-track faculty average less than one gerontological nursing publication annually that is peer reviewed and databased	2 One to three tenured and tenure-track faculty average one, but less than two gerontological nursing publications annually that are peer reviewed and databased	3 Four or more tenured and tenure-track faculty average two or more first authored gerontological nursing publications annually that are peer reviewed and databased
28.	<u>Research Presentations</u> 1 Three or less nurse faculty research presentations during the past year.	2 Nurse faculty averaged four to 6 research presentations during the past year.	3 Nurse faculty averaged 6 or more research presentations during the past year.
29.	1 No gerontological nurse faculty research presentations during the past year.	2 Gerontological faculty averaged one to two research presentations in the past year.	3 Gerontological faculty averaged more than two research presentations in the past year.

	<u>Leadership Career Development</u>		
30.	1 Faculty are not mentored to be leaders in research, scholarship, or policy influence	2 There is some emphasis on mentoring faculty for leadership careers	3 There is a great deal of emphasis on mentoring faculty to develop leadership careers
31.	1 Faculty are not mentored to be leaders in gerontological nursing research, scholarship, or policy influence	2 There is some emphasis on mentoring faculty for gerontological leadership careers	3 There is a great deal of emphasis on mentoring faculty to develop gerontological leadership careers
32.	1 One or no faculty are active in national organizations, councils, or initiatives that influence the nursing profession's social contract agenda and outcomes	2 Two to four faculty are active in national organizations, councils, or initiatives that influence the nursing profession's social contract agenda and outcomes	3 Four or more faculty are active in national organizations, councils, or initiatives that influence the nursing profession's social contract agenda and outcomes
33.	1 One or no faculty are active in national organizations, councils, or initiatives that influence health policies.	2 Two to four faculty are active in national organizations, councils, or initiatives that influence that influence health policies.	3 Four or more faculty are active in national organizations, councils, or initiatives that influence health policies.
34.	1 One or no faculty are active in national organizations, councils, or initiatives that influence health policies regarding the care of older persons.	2 Two to four faculty are active in national organizations, councils, or initiatives that influence health policies regarding the care of older persons.	3 Four or more faculty are active in national organizations, councils, or initiatives that influence health policies regarding the care of older persons.
	<u>National/International Recognition of Faculty for Research</u>		
35	1 One or two nurse faculty members have national and international reputation for research, scholarship, practice, or policy influence	2 Three to five nurse faculty have national and international reputations for their research, scholarship, practice, and policy influence	3 More than five faculty have national and international reputations for research, scholarship, practice, and policy influence
36	1 No faculty person has national and international reputation for gerontological research, scholarship, practice, or policy influence	2 One to two faculty have national and international reputations for their gerontological research, scholarship, practice, and policy influence	3 More than two faculty have national and international reputations for gerontological, research, scholarship, practice, and policy influence
	<u>Overall School Rating for Gerontological Nursing Research Intensity</u>		
37	1 My school has very low gerontological nursing research intensity	2 My school has a moderate level of gerontological nursing research intensity	3 My school has a very high level of gerontological nursing research intensity

Please complete the following:

Briefly describe three factors that you believe fundamentally prevent your school and faculty from increasing gerontological nursing research intensity-

1. Is your school located in a public ____ or private ____ university?
2. What are the numbers of **gerontological** nursing students enrolled in your school?
 - a. Undergraduate ____?
 - b. RN-BSN ____?
 - c. Second degree BSN ____?
 - d. Second degree MSN ____?
 - e. Nurse Practitioner ____?
 - f. Other master's level program ____ (Please list type of gerontological master's program)?
 - g. PhD ____?
 - h. DNP ____?
 - i. Other doctoral level research degree ____ (Please list type of doctoral research degree)?
3. How many FTE **gerontological** nursing faculty in your school ____? How many of these faculty have formal training in gerontological nursing? ____
4. How many FTE **gerontological** nursing tenure-track and tenured faculty in your school? ____ How many of these faculty have formal training in **gerontological** nursing? ____
5. How many **gerontological** nursing faculty do you expect to retire in the next 5 years? ____ 10 years? ____
6. How many research productive **gerontological** nursing faculty do you expect to retire in the next 5 years? ____ 10 years? ____
7. Is your school actively seeking to increase its **gerontological** nursing research intensity? Yes ____ No ____

Thank you very much for completing the survey!

Figure.

37-item Research Intensity Scale-revised. Items added to the revised scale were 9, 20, 21, 22, 23, 28, 31, 32, 33, and 35.

Note. FTE = full-time equivalent; IRB = institutional review board; NIH = National Institutes of Health; s.h. = semester hours.

TABLE

27-Item Research Intensity Scale Results for Regional Training Core Schools

Item Topic	Item Number	Intensive Schools			Peer Schools							Development Schools			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
Mission of university	1	3	3	3	3	3	3	3	3	3	2	3	2	3	2
	2	3	3	3	2	2	3	2	3	2	3	3	2	2	2
Mission of school	3	3	3	3	3	3	3	3	3	3	2	3	2	3	2
	4	3	3	3	3	3	3	2	3	3	2	2	2	3	2
Office of research	5	3	3	3	3	3	3	3	3	3	3	3	2	3	2
	6	3	3	3	3	3	3	3	3	3	3	3	1	3	2
Research office staff	7	3	3	3	3	3	3	3	3	3	3	3	2	2	3
	8	3	3	3	3	3	3	3	3	3	3	3	1	3	2
	9	3	3	3	3	3	3	3	2	3	3	2	2	1	1
Director/Associate Dean of Research	10	3	3	3	3	3	3	3	2	3	3	3	2	3	2
	11	3	3	3	3	3	3	3	2	3	3	3	1	2	1
	12	3	3	3	3	3	3	3	2	3	3	2	3	3	3
Faculty expectations for research	13	3	3	3	3	3	3	3	3	3	3	3	2	3	2
	14	3	3	3	2	3	3	2	3	3	3	3	2	2	2
Faculty research development	15	3	3	3	2	3	2	3	3	3	2	2	2	3	3
	16	3	3	3	3	3	3	3	3	3	3	3	3	3	2
Grant reviews	17	3	3	3	3	3	3	2	3	3	3	2	2	2	2
Research culture	18	3	3	3	3	3	3	2	2	3	3	3	2	2	2
Faculty gerontological nursing research programs	19	3	3	3	2	3	2	3	2	3	2	2	2	2	2
Faculty teaching assignments	20	3	3	3	3	3	3	3	3	3	2	3	2	2	1
	21	3	3	3	3	3	3	3	3	3	2	3	2	3	1
	22	3	3	3	3	3	3	3	3	3	2	3	2	3	3
Research funding	23	3	3	3	3	2	3	2	3	2	3	3	2	1	1
Publications	24	3	3	3	3	2	3	3	3	2	3	3	2	2	2
	25	3	3	3	3	2	3	2	3	2	2	2	2	2	2
Leader career development	26	3	3	3	2	1	3	2	3	1	2	2	2	3	2

Item Topic	Item Number	Intensive Schools			Peer Schools							Development Schools			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
National/international research recognition	27	3	3	3	2	2	3	2	3	2	2	1	2	2	1
Total score		81	81	81	75	74	79	72	72	75	69	70	53	66	52

Note. Respondents on the 27-item version of the Research Intensity Scale were schools participating in The University of Iowa College of Nursing Gerontological Nursing Interventions Research Center (GNIRC)/Hartford Center of Geriatric Nursing Excellence (HCGNE) Regional Training Core (RTC).

Possible range of total scores = 27 to 81. 27 to 51 = Development schools; 52 to 76 = Peer schools; 77 to 81 = Intensive schools.