Assessing Gerontology Competencies: A Pilot Study

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BACKGROUND/RATIONALE

Twenty years ago the seminal work *Core Principles and Outcomes of Gerontology, Geriatrics and Aging Studies Instruction* (AGHE, 1993) by Pamela Wendt, David Peterson and Elizabeth Douglass provided competency standards for gerontological knowledge and skills at various academic levels. Importantly, their core organizing principles and educational outcome statements were ratified through a national survey research process that was comprehensive and achieved a high level of agreement (at least 75%) among the 2668 respondents (79%) from the sample of 3367 questionnaires sent to the campuses known to have Gerontology and Geriatrics programs. In the 20 years that followed, however, the work of Wendt et al. (1993) has been largely ignored.

Relatively recently, as momentum has built for an AGHE accreditation process for academic gerontology programs, and as other professions such as Social Work have focused on competency-based education (e.g., Damron-Rodriguez, J.A., 2006, Moving forward: Developing geriatric social work competencies. In B. Berkman (Ed.), *Handbook of social work in health and aging*, pp. 1051-1068. Oxford, UK: Oxford Univ. Press) there has been renewed interest in developing and assessing core competencies in gerontology (e.g., Frank J. & Damron-Rodriguez, J.A. 2010, *Linking competency-based gerontology education to jobs in aging services*. Paper presented at the 36th Annual Meeting and Educational Leadership Conference of the Association for Gerontology in Higher Education, Reno, NV).

The present pilot study attempts to build on the work of Wendt et al. (1993) by developing a strategy for measuring the gerontology skill outcomes they identify for graduates of professionally oriented programs. Specifically, it operationalizes their skill outcomes by creating essay questions that were evaluated by three independent raters to assess inter-rater reliability. The method of measurement is important to assess since competency testing is intended to become the basis for credentialing applicants for Gerontology credentials through the National Association for Professional Gerontologists (NAPG). The measurement method used in some other examinations of gerontology skills, such as the Geriatric Social Work Competency Scale II (CSWE Gero-Ed Center), a self-assessment designed for pre-post evaluations of education and field training, would not be appropriate for credentialing purposes.

Wendt, Peterson & Douglass Core Organizing Principles (Domains) and Skill Outcomes for Graduates of Professionally Oriented Programs

Structure/Contexts/Heterogeneity

Skill Outcomes:

- Use knowledge of contexts to assess resources, to frame interventions and to organize individual, family and community efforts
- Work effectively with other professionals to provide necessary services and resources for aging individuals, their families or support groups
- Appreciate the contributions that aging persons make to each other, families and society

Concepts and Theories Used to Study Aging

Skill Outcomes:

- Match theories with situations in which theories would be applicable
- Apply to and modify practice and policy as concepts and theories indicate
- Develop statements of relationships between problems and solutions
- Evaluate the efficacy of theory as a way of designing interventions

Stability and Directions of Change

Skill Outcomes:

- Employ appropriate assessment procedures and intervention strategies to enhance quality of living and to maintain functional capacity and adaptation at the optimal level throughout the life cycle
- Act to enhance the adaptive capacity of organizations to deal with change

Ethical Issues

Skill Outcomes:

- Identify current ethical issues in the field of aging
- Relate personal, social and/or professional value systems in research and practice
- Behave ethically in relation to clients, colleagues and the profession

Scholarship and Research

Skill Outcomes:

- Conduct, utilize and disseminate applied research to improve practice
- Evaluate and utilize professional and scientific literature in gerontology to maintain currency in knowledge and skills, to provide valid rationale for practice and policies, and to enhance accurate interpretations of the various aging processes for the public and other professionals
- Evaluate popular media for scientific accuracy to provide appropriate expert opinion to clients

Application/Practice

Skill Outcomes:

- Demonstrate appropriate socialization, including behavioral and organizational protocols, use of resources, and professional responsibilities
- Develop and implement programs and services for individuals, families and communities across the service continuum
- Advocate for necessary services and resources

METHODS AND PROCEDURES

Respondents:

Respondents were students (N=40) enrolled in the San Francisco State University (SFSU) Master of Arts in Gerontology program. The SFSU Gerontology program corresponds to the "professionally oriented program" in the Wendt et al. typology. Students answered up to four essay questions per domain over three testing periods: December, 2012 (Ethical Issues and Scholarship and Research domains, 12 students); April, 2013 (Structure/Contexts/Heterogeneity and Stability and Directions of Change domains, 16 students); and May, 2013 (Concepts and Theories and Application/Practice domains, 22 students). Because different domains were tested in different classes, some students (N = 10) were enrolled in more than one class in which testing occurred and, therefore, answered questions from more than two domains.

Measures:

In addition to the skill outcomes questions, described below, students were asked questions about their age, gender, length of time in the Gerontology MA program, previous educational background, life satisfaction (measured by a Cantril ladder), length of time working with the elderly, and self-rated health. These single question measures were included to assess construct validity of the Wendt, et al. (1993) competency domains in a future phase of the analysis.

Operationalizing Skill Outcomes:

Each of the three authors contributed questions intended to operationalize each of Wendt et al. skill outcomes for professionally oriented programs detailed above. We then selected the questions we thought best represented the skill outcome, administered them to the students, and developed a scoring rubric for each. Developing the scoring rubric involved each of the three authors identifying elements of an answer. The following represents three examples of test/essay questions and scoring rubrics.

WENDT ET AL. DOMAIN: ETHICAL ISSUES

SKILL OUTCOME: BEHAVE ETHICALLY IN RELATION TO CLIENTS, COLLEAGUES AND THE PROFESSION

QUESTION:

Describe a practical situation in which the gerontology professional might find it difficult to satisfy both the principles of autonomy and benevolence. Faced with such a conflict, how would you resolve the dilemma? (12 essay answers available)

Scoring Rubric

Excellent (4 points): (a) Example situation poses a clear dilemma that involves autonomy vs. benevolence (e.g., senior wanting to remain in own home, but loss of sight or cognitive impairment causes danger to self, also may jeopardize others—autonomy says she should remain where she wants to live; benevolence says she should be relocated to where she is safer).
(b) Clear attempt to resolve dilemma and to preserve both principles (e.g., persuade client to move—gaining her consent; involve client in a relocation decision).
(c) Recognition that client's wishes must be respected—no coercion.
(d) Answer shows understanding of both principles; shows good problem solving, comes to a conclusion.

Good (3 points): (a) Example given that poses clear dilemma, but less strong linkage of principles to dilemma.
(c) Shows understanding of principles, but more willing to "force" client into a course of action for his/her own good.
(d) Some problem solving suggested, less detail, maybe no conclusion suggested.

Fair (2 points): (a) A dilemma is posed but there is no discussion that clearly shows an understanding of principles of autonomy and benevolence (or a discussion is presented that shows understands principles but doesn't pose dilemma that involves them).
(c) Willing to push a client into a course of action for his/her own good.
(d) Unable to suggest problem-solving strategy and/or resolve dilemma.

Poor (1 point): (a) Provides answer, but doesn't pose dilemma that involves principles and doesn't show understanding of principles.
(c) Willing to force a client into a course of action.
(d) No appropriate problem-solving strategy suggested or way to resolve dilemma given.

Unacceptable (0 points): No answer given.

WENDT ET AL. DOMAIN: SCHOLARSHIP/RESEARCH

SKILL OUTCOME: EVALUATE AND UTILIZE PROFESSIONAL AND SCIENTIFIC LITERATURE IN GERONTOLOGY

QUESTION:

You belong to a group of professionals in your community who provide a variety of services to citizens of all ages. Each month, a member of the group is asked to give a talk about a topic of broad interest from the particular point of view of that professional. You are a gerontologist and your turn is coming up. You have decided to talk about "caregiver burden." Since your audience consists of professionals, you want to make sure you are providing current and scientific information. How would you go about researching this topic? Specifically, what information would you search for, what sources would you use, and on what would you focus? (12 essay answers available)

Scoring Rubric

Excellent (4 points): (a) Provides clear, appropriate strategy for researching topic, including selecting appropriate, scientific/professional sources--includes professional/scientific journals (within last 5-10 years) and may include professional data bases/websites--beyond Google or Wikipedia, etc.
(b) May provide specific detail about sources for caregiver burden—sources are appropriate/scientific.
(c) May include interviews with agencies dealing with caregivers.
(d) Provides specific information to be included in presentation and/or intention to discuss how caregiver burden may affect professionals in audience (their clients, customers, users of their services).

Good (3 points): (a) Identifies appropriate scientific/professional sources of information (including mention of journals/scientific literature).
(b) May include some appropriate sources specific to caregiver burden, but less detail.
(d) Provides some specific information to include in presentation.

Fair (2 points): (a) Fewer appropriate sources mentioned (may or may not mention professional/scientific literature and/or relevant data bases/websites).
(b) Some mention of appropriate sources specific to caregivers.
(d) May or may not include information on presentation, but if so, little detail.

Poor (1 point): (a) Very general sources listed (e.g., Google, Wikipedia) or vague references to appropriate sources and/or sources specific to caregiving.
(b) No mention of scientific/professional literature, and/or no mention of information to be included in presentation.

Unacceptable (0 points): (a) Only inappropriate (general, non-scientific) sources identified, vague comments with little relevant to question, or no answer.

WENDT ET AL. DOMAIN: APPLICATION/PRACTICE

SKILL OUTCOME: ADVOCATE FOR NECESSARY SERVICES AND RESOURCES

QUESTION:

Identify a service that you believe is lacking in your community that would be of benefit for older citizens. How would you decide what service is missing and what would be beneficial? How would you go about advocating for the development of this service and the resources to support it? (22 essay answers available)

Scoring Rubric

Excellent (4 points): (a) Identifies a reasonable service (or strategy for identifying a service). Discussion would include two or more of the following points (e.g., needs assessment, interviews with service providers, opinion/community leaders, political/civic leaders, older adults, their families, other reasonable data).
(b) Explains how would advocate for development of service (e.g., enlisting support of business leaders, civic/political leaders, service providers, "thought leaders", community members, media outreach, forming community advisory board, identifying other supporters, finding funding sources—grants, foundations, existing agencies, business support) --- two or more points identified.

Good (3 points): (a) Identifies a reasonable service (or strategy for identifying a service). Discussion includes some detail, not as much as above, at least two points identified.
(b) Explains how would advocate for development of service (some examples, but less than above, at least two points identified).

Fair (2 points): (a) Identifies a reasonable service (or strategy). Discussion includes at least one point and/or explains how would advocate for development of service (at least one point) but not both.
(b) Little detail is provided

Poor (1 point): (a) Identifies a service—may or may not be reasonable. Poor or no explanation of either how decided what service is missing and poor or no explanation of how would advocate for development of service.

Unacceptable (0 points): (a) No answer/missing or no reasonable service selected and poor or no explanation of how decided what service is missing and poor or no explanation of how would advocate for development of service.

RESULTS

Fifteen essays were selected for initial scoring, five essays per each of the three sample questions above. Each of the three authors independently scored the essay answers using the agreed-upon scoring rubric. Two raters agreed on a score (from 0 to 4) eight times and all three raters agreed on a score an additional two times. Thus, at least two raters agreed on a score (from 0 to 4) on 10 of the 15 essay answers (67% agreement). These results appear in Table 1 below.

Following this first set of scoring, raters further discussed scoring elements and slightly modified the scoring rubrics. The remaining 31 essays available for the three example questions were selected for a second round of scoring.

Results of the second round of scoring, also appearing in Table 1 below, indicate that two raters scoring independently agreed on a score (from 0 to 4) 20 times and all three raters agreed on a score an additional nine times. Thus, at least two raters agreed on a score (from 0 to 4) on 29 of the 31 essay answers (94% agreement). While the numbers are small, this represents a considerable improvement with additional refinement of the scoring rubric and rater training, achieving an acceptable level of inter-rater reliability.

Table 1

Rates of Inter-rater Agreement for Student Scores in Each of Three Domains

		Rates of Agreement			
Domain	*n* Essays	No Agreement	Two Raters Agree	Three Raters Agree	Overall Agreement
			Round 1		
Ethical Issues	5	1	3	1	80%
Research and Scholarship	5	3	2	0	40%
Application and Practice	5	1	3	1	80%
Round 1 Totals	15	5	8	2	67%
			Round 2		
Ethical Issues	7	0	4	3	100%
Research and Scholarship	7	1	6	0	86%
Application and Practice	17	1	10	6	94%
Round 2 Totals	31	2	20	9	94%

CONCLUSIONS, NEXT STEPS

The intent of this pilot study was to refine a process for developing questions derived from the Wendt et al. (1993) skill outcomes, designing scoring rubrics for those questions, and training raters to use the scoring rubrics to evaluate the essay answers. It is important to point out that, as a developmental pilot study, the numbers of student respondents and essay answers are quite small. Keeping in mind these small sizes, the study did achieve its major purposes. It is clearly possible to develop essay questions designed to assess gerontological skills, and through the process of designing scoring rubrics and rater training, to achieve a reasonable level of agreement among raters, or inter-rater reliability.

The authors are currently engaged in the process of enlarging the number of students/essays and in recruiting additional raters to see if the scoring procedures developed here can be replicated with other raters.

The next phase of the study involves assessing the construct validity of the Wendt et al. (1993) competency domains. Single-item measures for age, gender, length of time in the Gerontology MA program, previous educational background, life satisfaction (measured by a Cantril ladder), length of time working with the elderly, and self-rated health will be used in this phase of the analysis.

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