Florida Public Health Review

Volume 1 Article 4

3-10-2004

Health Educators in Florida's County Public Health Departments: Frequency of and Perceived Confidence in Performing Entry-Level Competencies

Michele Johnson Moore
University of North Florida, mmoore@unf.edu

Follow this and additional works at: https://digitalcommons.unf.edu/fphr

 Part of the Public Health Commons, and the Social and Behavioral Sciences Commons

Recommended Citation

Moore, Michele Johnson (2004) "Health Educators in Florida's County Public Health Departments: Frequency of and Perceived Confidence in Performing Entry-Level Competencies," *Florida Public Health Review*: Vol. 1, Article 4.
Available at: https://digitalcommons.unf.edu/fphr/vol1/iss1/4

This Research Article is brought to you for free and open access by the Brooks College of Health at UNF Digital Commons. It has been accepted for inclusion in Florida Public Health Review by an authorized administrator of UNF Digital Commons. For more information, please contact Digital Projects.
© 3-10-2004 Protected by original copyright, with some rights reserved.

Health Educators in Florida's County Public Health Departments: Frequency of and Perceived Confidence in Performing Entry-Level Competencies

Gwendolyn Matthews, MSH, CHES
Michele Johnson Moore, PhD, CHES
Chudley (Chad) Werch, PhD, CHES

Abstract
The purpose of this study was to determine whether the activities of health educators in Florida's county health departments concur with the responsibilities and competencies for health educators that have been established by the National Commission for Health Education Credentialing (NCHEC, 2003). Fifty-three (68.8%) county public health department health educators completed a modified version of the Self-Assessment for the Health Education Specialist instrument (National Task Force, 1987) to determine the frequency and perceived confidence in performing entry-level health educator responsibilities. The data indicated that the entry-level responsibilities reflect the current health education practice in this group of health educators. The responsibility areas of planning and implementing health programs received the highest mean scores for frequency of performance (M=3.98, SD=0.66; M=3.88, SD=0.89, respectively) and perceived confidence level (M=4.13, SD=0.75; M=4.14, SD=0.90, respectively), whereas communicating and evaluating received the lowest mean scores for frequency (M=3.46, SD=0.94; M=3.49, SD=1.08, respectively) and perceived confidence level (M=3.86, SD=0.84; M=3.61, SD=1.11, respectively). A statistically significant positive correlation (p<.001) was found between frequency of performance and perceived confidence level for the mean scores of all seven responsibility areas. There were no statistically significant differences between health education and non-health education majors in their frequency and perceived confidence levels in performing the responsibilities, nor was there a statistically significant correlation between the years of experience and the frequency or perceived confidence level of performing the responsibilities. Implications for training needs of health educators in Florida's public health departments are discussed.
***Florida Public Health Review*, 2004; 1: 8-15**

Introduction

"Health educators are professionals who design, conduct and evaluate activities that help improve the health of all people" (National Commission for Health Education Credentialing [NCHEC], 2003). The process of defining the role of the health educator began in 1978 with the establishment of the National Task Force on the Preparation and Practice of Health Educators. The purpose of the task force was to develop a comprehensive credentialing system for the health education profession. This process became known as the Role Delineation Project. Health educators from various settings verified and refined the role specification for entry-level health educators. Specific areas of responsibility, competencies, and sub-competencies for the entry-level health educator were adopted through the Role Delineation Project. The responsibilities include: (1) assessing individual and community needs for health education, (2) planning effective health education programs, (3) implementing health education programs, (4) evaluating effectiveness of health education programs, (5) coordinating provision of health education services, (6) acting as a resource person in health education and (7) communicating health and health education needs, concerns and resources. These subsequently formed the basis for a framework for professional preparation and a national examination leading to certification as a certified health education specialist. In 1988, NCHEC replaced the National Task Force. The mission of NCHEC includes implementation and maintenance of the certification process (NCHEC, 2003; Nolte & Hamburg, 1993; Schmidt & Beall, 1988).

Since the Role Delineation Project, only a handful of studies have addressed health educator responsibilities and competencies. Some of these studies focused on the perceived confidence of health educators in performing entry-level skills. Schmidt and Beall (1988) used the Health Educator's Self-Assessment survey to compare the perceptions of students in a professional preparation program prior to and following the field experience. The tool addressed the competencies described by the National Task Force for Preparation and Practice of Entry-level Health Educators. The researchers noted significant gains in students' perceived confidence in performing the seven areas of entry-level responsibilities from pre-field experience to post-

Published by UNF Digital Commons, 2004

field experience. The students were most confident in the areas of coordinating provision of health ability to assess individual and community needs for health education.

Hayden (1990) surveyed 99 health educators attending professional association meetings. It was found that while there was perceived confidence in ability to perform all responsibilities, two responsibilities- evaluating health education programs and acting as a resource person in health education- received the lowest confidence ratings. Hayden (1992) surveyed college seniors majoring in health education to assess their perceived confidence in performing the generic skills of health education. In general, the students were moderately confident in their ability to perform the skills required for certification, reporting the most confidence in their ability to assess needs and the least in evaluation and acting as a resource person.

The perceived importance and use of the competencies in practice settings have also been addressed. Knight (1991) surveyed health education graduates regarding their perceptions of the importance of entry-level skills and their personal mastery of such skills. The provision and planning of health education programs were considered the most important skills whereas evaluation of programs and services was considered one of the least important skills. Evaluation was also indicated as an area of perceived deficiency. Allison, McNally, DePape and Kelner (1995) surveyed graduates of a master's degree program in health promotion regarding their job responsibilities. All respondents graduated within ten years of the survey period. The participants reported engaging in all entry-level responsibilities except for acting as a resource person and communicating health and health education needs.

Finally, other studies have emphasized the employer's perceptions. Sondag, Taylor and Goldsmith (1993) investigated employers' perceptions of the importance of health education skills. The areas of communicating needs and assessing needs were rated most important. Bajracharya (1999) obtained similar findings by duplicating this study in a rural setting. In yet another study of employer attitudes and perceptions about health education, favorable attitudes toward credentialing were noted by Clark, Parillo and Wood (1998).

Health educators are frequently employed in community or public health department settings (Mail, 1993). However, the review of the literature did not yield any published studies specifically addressing the frequency and perceived confidence of performance of the NCHEC responsibilities and education services and acting as a resource person in health education. They were least confident in their competencies among public health department educators, despite recommendations to continue research in this arena. The ongoing National Health Educator Competencies Update Project (CUP) was initiated in 1998 to establish valid and verified competencies for both entry and advanced levels of health education practice across diverse settings due to interest expressed by professional organizations to re-verify competencies and ensure they reflect current health education practice (NCHEC, 2003). Allison, McNally, DePape and Kelner (1995) recommended exploring the issue of roles and responsibilities of health education staff within public health departments. Finally, Bajracharya (1999) suggested examining the frequency with which certain skills are performed to help determine the importance of the delineated skills in various settings, clarify the professional identity of health educators, and promote strengthening and expansion of training programs that focus on important competencies.

Purpose of the Study

This study focuses on the role of the health educator in the public health department setting and the relationship of this role to the entry-level responsibilities and competencies of the health educator as delineated by NCHEC. It addressed the following research questions: 1) What are the characteristics (e.g., educational background, years of practice, etc.) of those performing the duties of the health educator in the county public health departments? 2) How frequently are health educators in Florida's county public health departments performing the responsibilities and competencies of health educators? 3) How confident are health educators in Florida's county public health departments in performing the responsibilities and competencies of health educators? 4) Which variables (e.g., educational background, years of practice, etc.) are related to frequency and perceived confidence in performing the responsibilities and competencies of health educators?

Methods

Participants

The targeted population for the study was health educators employed by the 67 county public health departments in Florida. The public health educators were identified through a listing obtained from the Florida Department of Health. Although various employees perform health education within the county health department, only those persons with a specific health educator title were included. The titles were health educator, senior health educator,

health education supervisor, health educator consultant and health education program manager. Eighty- seven health educators met the criteria. Ten educators were employed as subjects in the pilot study. Therefore, 77 educators were mailed the Health Educator Survey. Fifty-seven completed surveys were returned, of which two were ineligible due to not having a health educator title and two were duplicates, leaving 53 (68.8%) respondents for the study sample.

Instrumentation

The Health Educator Survey was used to measure the variables of interest. The survey was adapted from a tool designed by the National Task Force on the Practice and Preparation of Health Education (1987). The original tool was a 79-item self-assessment that measured competencies and sub-competencies of health educators in the seven responsibility areas. Due to the length of the survey, it was modified to only assess the competencies in the seven responsibility areas. The modified questionnaire listed all 27 competencies grouped under the respective responsibilities, and asked participants to indicate the frequency of performance and their perceived confidence in performing each competency. The responses were ranked on a 5-point Likert scale. Frequency of performance was rated from 1 (never) to 5 (always). Perceived confidence in performance was rated as 1 (not at all) to 5 (very). In addition, the survey contained 14 demographic items addressing areas such as the respondent's age, education, and salary.

A review panel consisting of two doctoral-prepared health educators with CHES certification and several graduate-level health education students reviewed the instrument. Based on the feedback, minor adjustments to the survey were made. The survey was then pilot-tested with ten county public health department health educators to test the instrument and the procedures related to the study. As a result, two demographic questions were revised to improve clarity.

Procedures

Data collection for the study was conducted via a mailed questionnaire between May and July 2001. Each participant was mailed a survey packet that included a cover letter explaining the purpose of the questionnaire and inviting the health educator to participate. A stamped self-addressed envelope was enclosed to facilitate survey return. In addition, participants were offered the option of returning the survey via facsimile. One week after the initial mailing, a reminder postcard was sent to all participants. Three weeks after the postcard mailing, non-respondents were sent a follow-up letter, replacement questionnaire and an additional stamped self-addressed envelope. Completion of the questionnaire served as written consent to participate in the study. The University of North Florida's institutional review board approved the study.

Data Analysis

Data were analyzed using SPSS 10.0 software. Descriptive analyses included frequencies, means, and standard deviations on all survey items as appropriate. T-tests were used to assess differences between health education majors and non-majors' overall mean scores on reported frequency and perceived confidence in performing the seven responsibilities. Pearson's correlations were used to assess relationships between years of experience, reported frequency, and perceived competence for the seven responsibility scales. Due to the number of analyses that were conducted (n=35), a Bonferroni adjustment was made to correct for the familywise type 1 error rate. The level for statistical significance was, therefore, set at $p < .001$.

Results

Fifty-three questionnaires were received from county public health department health educators, yielding a response rate of 68.8%. Demographic information is listed in Table 1. The majority of the participants were female (73.6%). Most identified themselves as white (71.7%). They had a mean age of 40.81 years (SD=14.36). Participants reported a range of educational backgrounds from associate degrees to doctoral degrees, with 45.3% achieving a bachelor's degree as their highest level of education and 47.2% obtaining a master's degree. The respondents were employed full-time (90.6%), provided services to only one county (92.5%), and held the title of health educator (24.5%), senior health educator (35.8%), or health educator consultant (28.3%). Most participants (88.7%) reported earning a salary of less than $40,000 per year.

Years of experience as a health educator ranged from six months to 30 years with a mean of 8.75 years. Most respondents (54.7%) reported a major outside the areas of health education or community or public health. More than half of the health educators did not report any certifications (56.6%) or memberships in professional organizations (51.0%). Certifications reported included the Certified Health Education Specialist (11.3%), the Certified Health Educator (3.8%), and job specific certifications (20.8%) such as cardiopulmonary resuscitation (CPR) or lactation consultant. The professional associations with the largest percentage of affiliation were the American Public Health Association (17.0%) and the Florida Public Health Association (15.1%).

Published by UNF Digital Commons, 2004

Table 1: Characteristics of Florida County Public Health Department Health Educators

Characteristic	% (N=53)
Age M(SD)	40.81 (14.36)
Title	
Health Educator	24.5%
Senior Health Educator	35.8%
Health Education Supervisor	5.7%
Health Educator Consultant	28.3%
Health Education Program Manager	5.7%
Employment Status	
Full Time	90.6%
Part Time	7.5%
Gender	
Male	26.4%
Female	73.6%
Race/Ethnicity	
White	71.7%
Black	17.0%
Hispanic	3.8%
Asian	3.8%
Other	3.8%
Highest Level of Education	
Associate, 2-year degree	3.8%
Bachelor's degree	45.3%
Master's degree	47.2%
Doctorate	3.8%
Salary	
$20,000-$29,999	43.4%
$30,000-$39,999	45.3%
$40,000-$49,999	9.4%
$50,000-$59,999	1.9%
Years of Experience M(SD)	8.75 (8.11)
Degrees Held with Majors	
Bachelor's in Health Education or Community/Public Health	9.4%
Master's in Health Education or Community/Public Health	35.8%
Other Majors (Associates-Doctorate)	54.7%
Certifications	
Certified Health Education Specialist (CHES)	11.3%
Certified Health Educator (CHE)	3.8%
Other	20.8%
Membership in Professional Associations	
None	51.0%
American Public Health Association	17.0%
Florida Public Health Association	15.1%
Other	9.5%

Data were also collected related to perceived training needs of the participants. This data collection process yielded a variety of responses. Grant writing (11.3%), social marketing (6.1%), computer skills (6.1%), cultural competence (4.5%), communications (4.5%), public speaking (4.5%), and improving public health outcomes (4.5%) were the most frequently noted topics.

Frequency of Performing Responsibilities

Mean reported frequencies of engaging in each of the listed competencies (1=never performed to 5=always performed), as well as an overall frequency mean score for each of the seven responsibilities are presented in Table 2. The overall frequency mean score for each of the responsibilities was obtained by averaging the mean scores for the corresponding competencies. For the competencies, exhibiting competence in carrying out planned education programs (Implementing) obtained the highest frequency mean score (4.13). Predicting the impact of societal values on health education programs (Communicating) and interpreting concepts, purposes and theories of health education (Communicating) received the lowest frequency mean scores (both 3.19). For the overall responsibilities, planning effective health education programs had the highest frequency mean score (3.98), while communicating health and health education needs, concerns and resources had the lowest frequency mean score (3.46).

Perceived Confidence in Performing Responsibilities

Mean reported perceived confidence levels for engaging in each of the listed competencies (1=not at all confident to 5=very confident), as well as an overall perceived confidence mean score for each of the seven responsibilities are presented in Table 2. The overall perceived confidence mean score for each of the responsibilities was obtained by averaging the mean scores for the corresponding competencies. For the competencies, exhibiting competence in carrying out planned education programs (Implementing) obtained the highest perceived confidence mean score (4.34), while interpreting the results of program evaluation (Evaluation) received the lowest perceived confidence mean score (3.55). For the responsibilities, implementing health education programs and planning effective health education programs had the highest perceived confidence mean scores, 4.14 and 4.13 respectively, while evaluating the effectiveness of health education programs had the lowest perceived confidence mean score (3.61).

Variables Affecting Frequency and Perceived Confidence in Performing Responsibilities

Further analyses were performed to assess the relationship between respondents' self-reported frequency and perceived confidence scores for each of the seven responsibilities. Pearson product-moment correlations indicated statistically significant ($p<.001$), positive relationships between the reported frequency and perceived confidence in performing all seven responsibilities (Table 2). As the frequency of using the responsibility increased, health educators'

Table 2: Mean Scores for Reported Frequency and Perceived Confidence in Performing Responsibilities and Competencies

Responsibilities & Competencies	Frequency M(SD)	Confidence M(SD)	r
I. Assessing individual and community needs for health education	3.67(0.80)	3.94(0.85)	.63*
A. Obtain health-related data	3.47(0.95)	3.79(0.97)	
B. Distinguish between behaviors that foster and hinder well-being	4.04(0.88)	4.21(0.86)	
C. Infer needs for health education on the basis of obtained data	3.51(1.09)	3.81(0.98)	
II. Planning effective health education programs	3.98(0.66)	4.13(0.75)	.56*
A. Recruit community organizations, resource people, etc.	4.04(0.76)	4.17(0.83)	
B. Develop a logical scope/sequence plan for a health education program	3.85(0.95)	4.11(1.01)	
C. Formulate appropriate and measurable program objectives	3.91(0.88)	4.06(0.93)	
D. Design educational programs consistent with program objectives	4.11(0.75)	4.17(0.78)	
III. Implementing health education programs	3.88(0.89)	4.14(0.90)	.76*
A. Exhibit competence in carrying out planned educational programs	4.13(0.96)	4.34(0.90)	
B. Infer enabling objectives needed to implement instructional programs	3.49(1.19)	3.92(1.11)	
C. Select methods and media best suited to implement program plans	4.00(1.00)	4.13(0.96)	
D. Monitor education programs, adjusting objectives/activities as needed	3.91(1.18)	4.15(1.10)	
IV. Evaluating effectiveness of health education programs	3.49(1.08)	3.61(1.11)	.62*
A. Develop plans to assess achievement of program objectives	3.64(1.08)	3.64(1.23)	
B. Carry out evaluation plans	3.51(1.17)	3.66(1.16)	
C. Interpret results of program evaluation	3.34(1.27)	3.55(1.34)	
D. Infer implications from findings for future program planning	3.45(1.22)	3.60(1.28)	
V. Coordinating provision of health education services	3.53(0.79)	3.94(0.79)	.68*
A. Develop a plan for coordinating health education services	3.36(1.09)	3.75(1.12)	
B. Facilitate cooperation between and among levels of program personnel	3.57(1.15)	3.81(1.16)	
C. Formulate modes of collaboration among health agencies/organizations	3.60(0.97)	4.00(0.94)	
D. Organize in-service training programs for teachers, volunteers, etc.	3.60(1.13)	4.21(0.97)	
VI. Acting as a resource person in health education	3.83(0.77)	4.10(0.74)	.79*
A. Utilize computerized health information retrieval systems effectively	3.74(1.06)	3.81(1.13)	
B. Establish effective relationships with those requesting assistance	3.68(0.92)	4.06(0.82)	
C. Interpret and respond to requests for health information	3.94(0.95)	4.25(0.85)	
D. Select effective educational resource materials for dissemination	3.98(0.80)	4.30(0.82)	
VII. Communicating health education needs, concerns, and resources	3.46(0.94)	3.86(0.84)	.75*
A. Interpret concepts, purposes, and theories of health education	3.19(1.18)	3.79(1.08)	
B. Predict impact of societal value systems on health education programs	3.19(1.24)	3.58(1.13)	
C. Select a variety of communication methods in providing health info	3.83(0.98)	4.11(0.93)	
D. Foster communication between health care providers and consumers	3.64(1.11)	3.94(1.03)	

Notes: Frequency Rating: 1=never to 5=always; Confidence Rating: 1=not at all to 5=very;
r= correlation between frequency and confidence for each total scale score; * p<.001

perceived confidence in performing the responsibility also increased. Pearson product-moment correlations also were performed to assess the relationship between years of experience as a health educator, and frequency and perceived confidence overall mean scores for each of the seven responsibilities. None of these relationships were statistically significant. Finally, independent t-tests were run to assess differences between persons with a health education major and those who reported majors in other areas, in frequency and perceived confidence overall mean scores for the seven responsibilities. None of these analyses were statistically significant. There was not a sufficient number of participants with CHES certification to assess differences in frequency and perceived confidence between those with and without certification.

Discussion

The results of this study indicate that the current health education practice among this group of Florida public health department health educators reflects the entry-level competencies. In examining the entire sample, mean frequency of performance of the responsibilities and competencies ranged from "sometimes" (3) to "frequently" (4) on a five-point scale. As expected, there was a statistically significant relationship between how commonly one engaged in a responsibility and their perceived confidence in their ability to perform that skill.

A further review of the responsibility and perceived confidence data revealed health educator strengths and potential areas for further development in professional education and continuing education. Planning effective health education programs, implementing health education programs, and acting as a resource person in health education received the highest mean scores for frequency of performance and perceived confidence level. Evaluating effectiveness of health education programs, and communicating health and health education needs, concerns and resources had the lowest mean scores on both scales.

Unfortunately, the finding that the aforementioned responsibilities received the lowest scores was not surprising. Participants in the study frequently mentioned training needs, such as social marketing and public speaking, that relate to the communication competency, while Allison et al. (1995) reported respondents in their survey did not regularly engage in this responsibility area. These findings also correspond to the continuing education needs of the currently employed public health education workforce as outlined by Allegrante et al. (2001). Regarding evaluation skills, previous research has found that health educators have the least confidence in their ability to perform evaluation compared to the other responsibility areas (Hayden, 1990; Hayden, 1992; Knight, 1991), and do not perceive evaluation to be important (Knight, 1991). Furthermore, a review of CHES examination performance found health educators obtain consistently low scores on questions relating to the evaluation and communication responsibilities (Sciacca et al., 1999).

Another finding of concern was the low percentage of respondents with the CHES designation. The diverse background of persons functioning as health educators in Florida's county public health departments may partially account for this. More than 50% of the respondents indicated educational degrees outside of traditional health education majors. Current eligibility requirements for the CHES examination are "based exclusively on academic qualifications" (NCHEC, 2003, Eligibility for the CHES exam section, para. 1). A health educator must have a minimum of a bachelor's degree in the field, or a bachelor's degree and at least 25 semester hours (37 quarter hours) of course work addressing the seven areas of responsibility in the framework (NCHEC, 2003). As a caveat, the survey did not assess whether respondents had 25 semester hours in the NCHEC responsibility areas, so some respondents with a major outside of the field may have been eligible for the exam, but decided against taking it.

Ineligible respondents aside, the low percentage of eligible respondents with CHES status is disconcerting. Reasons for not taking the exam may include perceptions that costs associated with the taking and maintaining the certification are too high; there is a lack of benefits associated with the certification; or there is a lack of available continuing education opportunities necessary to maintain the certification (Pahz, 1998). Another reason may be that some respondents do not perceive CHES as relevant to them since it is an "entry-level certification" and many held master's degrees and/or senior/supervisory positions. Entry-level has been described as the point at which individuals have mastered the knowledge and skills minimally necessary to perform the responsibilities and competencies (AAHE, NCHEC, & SOPHE, 1999). This description does not refer specifically to either practice level (e.g., entry versus advanced) or preparation level (e.g., undergraduate versus graduate), leading to some confusion about appropriate candidates for certification. Adding to this confusion is that there is not yet agreement within the field as to whether entry-level refers to baccalaureate or master's level (Taub, 1999). Although the health education profession has established advanced level performance competencies, certification for this level is not currently available.

Finally, despite the lack of formal preparation in health education, there were no statistically significant differences between health education majors and non-majors in reported frequency of performance and perceived confidence in performing the responsibilities. The additional finding that years of experience was not correlated with frequency or perceived confidence in performing any of the seven responsibilities suggests that among this group of health educators there are factors outside of academic preparation and years of experience that are important in defining role perception.

Limitations

In interpreting the present results, readers should consider several limitations that may affect the ability to generalize the findings to other groups of health educators. First, the sample only included persons with a health educator title and not all persons that perform health education in Florida's county public health departments; therefore, it may not accurately reflect the performance patterns and perceived confidence levels of all persons who function as health educators in the public health setting. Another factor is that the study's respondents volunteered to participate. Although the survey was mailed to all known persons with a health educator title, only those respondents who were motivated to complete and

return the survey became sources of data. Thus, the results may be biased as those who did not return the questionnaire may have responded differently. However, some authors consider a 50% response rate adequate to ensure a representative sample, and a 70% response rate to be very good (Babbie, 1992). Finally, the study uses self-reported data to describe behavior; therefore, there is the potential for health educators to report that they behave in a socially desirable manner. This may have resulted in the respondents reporting that they performed the health educator responsibilities and competencies more often and with more confidence than was warranted.

Recommendations

According to NCHEC (2003, Why certify? section, para. 2), certification "attests to the individual's knowledge and skills deemed necessary to the field of practice as delineated by the profession." It also assists employers in identifying qualified health education practitioners, and assures consumers that services are provided by professionals who have met national standards. These are important arguments, but the findings of this study illustrate the potential difficulty in convincing practicing health educators to obtain certification, and hence the required education, when there were no statistically significant differences in practice patterns among health education majors and non-majors. Additionally, the disagreement among the field regarding appropriate candidates for the certification (e.g., baccalaureate or master's level) may further compound the issue as many respondents held a Master's degree and/or a senior/supervisory position as a health educator.

The profession should, nonetheless, continue to promote the personal and professional benefits of certification, as well as the merits of practicing health educators having a degree in the field, to both health educators and their employers. Universities could play an important role by partnering with local health departments to assist practicing health educators in meeting the academic requirements necessary for certification, in addition to providing continuing education credits necessary to maintain CHES status. It was encouraging to note that within this group of health educators, many who indicated an undergraduate degree in an area other than health education later obtained a graduate degree with a health education major.

Further research should focus on other barriers to obtaining and maintaining certification, and ways to overcome those barriers. Consensus among the field and clear guidance regarding which degrees and positions are most appropriate for certification may also be helpful. Finally, it would be beneficial to study the relationship between perceived ability to perform the responsibilities and outside evaluation of these skills to further determine actual differences in performance between those with a health education major and those without, as well as those with and without CHES.

The responsibility and competency frequency and perceived confidence level data, coupled with the participant responses to training needs, indicated potential areas for continuing education. The Missouri Department of Health has sponsored a health education-training network for 17 years (Henderson, 2001). One of the goals of the network is to promote professional development and continuing education for health education and health promotion professionals. Training has evolved to relate to the seven entry-level health educator responsibilities. Florida, as well as other states, should explore the feasibility of establishing this type of network. Again, universities could play an important role in this arena by providing continuing education in the responsibility areas health educators are less confident in performing, such as evaluation, and the topics specifically requested by participants, such as grant writing. Results from this study showed that participants were more likely to engage in skills they were confident in performing. Although correlations do not indicate causality, it is possible that by increasing respondents' confidence in their ability to perform critical skills they may engage in those activities more frequently (Bandura, 1977). Data, such as that collected in this study, could be used to tailor training programs.

Finally, the profession needs to continue evaluating current health education practice and verification of the competencies by practice and preparation levels. The National Commission for Health Education Credentialing, Inc. and the Coalition of National Health Education Organizations, USA (1996) sponsored a conference that examined the future of the health education profession. During the conference, attendees identified actions needed within the profession to move it into a significant role within the United States as the 21st century emerged. These actions included describing the state of the profession, standardizing the practice of the profession and defining the body of knowledge/skills of health education. Presently, the profession continues to work toward completing these actions. Studies such as this one and the Competency Update Project presently sponsored by NCHEC (2003) will assist the field of health education to continue to achieve its professional goals.

References

Allegrante, J.P., Moon, R.W., Auld, M.E., & Gebbie, K.M. (2001). Continuing-education needs of the currently employed public health education workforce. *American Journal of Public Health, 91*(8), 1230-1234.

Allison, K.R., McNally, D., DePape, D., & Kelner, M. (1995). The career paths of MHSc graduates in health promotion. *Canadian Journal of Public Health, 86*(1), 10-15.

American Association for Health Education (AAHE), National Commission for Health Education Credentialing, Inc. (NCHEC), & Society for Public Health Education (SOPHE). (1999). *A competency-based framework for graduate-level health educators*. Allentown, PA: Authors.

Babbie, E. (1992). *The Practice of Social Research*, 6th Edition. Belmont, CA: Wadsworth Publishing Company.

Bajracharya, S.M. (1999). Employers' perceived importance and use of skills that are specific to health educators: A replication study in a rural setting. *International Electronic Journal of Health Education, 2*(2), 59-65.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review, 84*, 191-215.

Clark, J.K., Parrillo, A.V., & Wood, M.L. (1998). Attitudes and perceptions about health education credentialing: A national study of top agency executives in local health departments. *Journal of Health Education, 29*(4), 244-249.

Hayden, J. (1990). Preparing for certification: Health educators' perceived competencies. *Health Education, 21*(3), 41-42.

Hayden, J. (1992). Prepared for certification: Senior health educator majors' perceived competencies. *Journal of Health Education, 23*(6), 341-343.

Henderson, E.G. (2001). The Missouri Health Educator Network (HEN): A teaching, training, and skill-building program for systematic improvement of health education practice. *American Journal of Health Education, 32*(3), 150-152.

Knight, E.A. (1991). Curriculum planning for professional education: Meeting national standards and local needs. *Journal of Health Education, 22*(4), 226-232.

Mail, P. (1993). A national profile of health educators: Preliminary data from the first cohorts of CHES. *Journal of Health Education, 24*(5), 269-277.

National Commission for Health Education Credentialing, Inc. (2003). Retrieved December 13, 2003, from http://www.nchec.org.

National Commission for Health Education Credentialing, Inc. and Coalition of National Health Education Organizations, USA. (1996). The health education profession in the twenty-first century: Setting the stage. Conference proceedings, June 16-17, 1995, Atlanta, Georgia. *Journal of Health Education, 27*(6). 357-364.

National Task Force on the Preparation and Practice of Health Educators. (1987). *Self-assessment for the health education specialist, perceived competencies*. New York: Author.

Nolte, A.E., & Hamburg, M.V. (1993). Development of national certification for health education specialists. *Journal of Health Education, 24*(5), 263-268.

Pahz, J. A. (1998). Debating CHES. *CHES Bulletin*, Summer, 20-22.

Schmidt, G., & Beall, S. (1988). Role delineation competencies and the entry level health educator. *Health Education, 19*(1), 45-47.

Sciacca, J., Neiger, B., Poindexter, P., Hubbard, B., Giles, R., Black, D.R., Barr, H., Middleton, K., Cosgrove, W., & Cleary, M. (1999). Performance on the CHES examination: Implications for institutions offering programs in health education. *Journal of Health Education, 30*(1), 42-46.

Sondag, K.A., Taylor, E.L., & Goldsmith, M. (1993). Employers' perceptions of the importance of entry level health education skills. *Journal of Health Education, 24*(5), 305-310.

Taub, A. (1999). Defining advanced level competencies for health education specialists. *Journal of Health Education, 30*(3), 197-199.

Gwendolyn Matthews is with the Agency for Health Care Administration, Jacksonville, FL (matthewg@fdhc.state.fl.us). **Michele Johnson Moore** (corresponding author) is Assistant Professor, Department of Public Health, College of Health, University of North Florida, Jacksonville, FL (mmoore@unf.edu). **Chudley (Chad) Werch** is Distinguished Professor and Director, Center for Research on Substance Abuse, College of Health, University of North Florida, Jacksonville, FL (cwerch@unf.edu). This paper was submitted to the *FPHR* on December 29, 2003, reviewed and revised, and accepted for publication on February 21, 2004. Copyright ©2004 by the *Florida Public Health Review*.