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the holland code of members of the national organization for human services: a preliminary study of human services professionals

Ed Neukrug, Narketta Sparkman, and Jeffry Moe

This study determined the Holland code of members of the National Organization for Human Services. The authors used the O*NET Interest Profiler–Short Form, to find that a sample of 355 human services professionals had a Holland code of Social Artistic, with Investigative, Enterprising, and Conventional codes significantly lower than Artistic. Demographic differences were not found based on gender, whether members identified human services as their primary field, or whether they had formal education in human services. Slight differences based on age were noted. Results will be used to advocate for inclusion of “human services professional” in the Standard Occupational Classification system.

[AU3]

Keywords: Holland code, human services, career counseling, National Organization for Human Services, Standard Occupational Classification system, O*NET



In this study, we seek to identify the Holland code of members of the National Organization for Human Services (NOHS), which in turn will assist in the career selection and career counseling process of those seeking degrees or employment in the human services profession (Holland, 1973). Although human services degrees, and concomitant jobs, have been available since the 1960s (Di Giovanni, 2009), and despite the fact that it is a burgeoning field today, human services professional as a distinct field has not been added to the Standard Occupational Classification (SOC) system (U.S. Department of Labor, n.d.a). All related government resources, such as O*NET and the Occupational Outlook Handbook, use the occupations classified by the SOC system, which positively impacts public knowledge of and employment in a field (U.S. Department of Labor, n.d.a; n.d.b).

In this article we delineate the establishment of the human services profession, describe the results of a survey of NOHS members that identifies their Holland codes, and show how the codes distinguish human services professionals from related mental health professions. We hope the results can be used to justify the inclusion of human services professional in the SOC system.



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Ed Neukrug, Narketta Sparkman, and Jeffry Moe, Department of Counseling and Human Services, Old Dominion University. Correspondence concerning this article should be addressed to Ed Neukrug, Department of Counseling and Human Services, Old Dominion University, Room 110, College of Education, Norfolk, VA 23529 (e-mail: eneukrug@odu.edu).

ESTABLISHMENT OF THE HUMAN SERVICES PROFESSION

Because of the passage of the Community Mental Health Act of 1963, and related initiatives of President Lyndon B. Johnson's Great Society legislation, there was a significant shift in the types and numbers of social services agencies available in the United States during the 1960s (Zelizer, 2014). In response to the increased need for mental health professionals, the Southern Regional Education Board (SREB) provided seed money to develop the first associate-level human services programs at community colleges in the South (Diambra, 2001).

Despite federal cutbacks to social services programs, during the 1970s the growth of bachelor degree programs in human services gained momentum. These degree programs offered professional training in human services that borrowed from the knowledge base of psychology, social work, and counseling (Fullerton, 1990a, 1990b). Today, hundreds of human services programs, which provide general training in the profession at the associate, bachelor, and master's degree level, can be found across the country (McClam, Woodside, & Cole-Zakrzewski, 2005; Neukrug, 2016).

In 1975, the National Organization for Human Service Education (NOHSE; now NOHS) was founded (Di Giovanni, 2009); in 1979, it launched the *Journal of Human Services*. Soon after, the Council for Standards in Human Service Education (CSHSE) was founded, and today CSHSE has accredited 50 human services programs at the associate, bachelor, and master's degree level, and that number is expected to increase (CSHSE, 2017).

With the support of NOHSE and CSHSE, the first ethics code in human services was approved by NOHSE in 1996 (NOHSE, 1996) and recently revised (NOHS, 2015b). Also in 1996, the Human Services Research Institute published the Community Support Skill Standards, which include 12 competencies and the skills and tasks associated with them. The skill standards were developed through a nationwide job analysis and are used to inform educators who set curricula for human services training programs (Taylor, Bradley, & Warren, 1996). In consultation with CSHSE and NOHS, in 2008 the Center for Credentialing and Education (CCE) developed its first certification credential—the Human Services—Board-Certified Practitioner (HS-BCP). To date, the CCE has credentialed thousands of human services professionals and as HS-BCP is its only national-level credential, it is likely the number of certified professionals will increase in the future (Sparkman & Neukrug, 2014).

Today, a human services professional is defined as a person who has an associate, bachelor, or sometimes master's or doctoral degree specifically in human services, although other professionals who align with the mission of NOHS and CSHSE often identify as human services professionals and are embraced by the professional community (McClam, et al., 2005). Human services educational programs generally include courses in the history of human services; interviewing skills; interpersonal relationships; family guidance/counseling; group counseling; crisis intervention; policy development; human development; career development; research; assessment and evaluation; counseling theories; social and cultural issues; ethical, professional, and legal issues; special populations (e.g., substance abuse, intellectual disabilities, homelessness, poverty, mental illness); funding and grant-writing; leadership and administration; and field placement (Clubok, 1997; CSHSE, 2009).

[AU8] Today, the human services professional is seen as a generalist with interdisciplinary knowledge who can take on a wide range of roles and often works side-by-side with many other professionals (Hinkle & O'Brien, 2010; NOHS, n.d.a). Although the human services professional generally does not do in-depth counseling or psychotherapy, he or she is well equipped to facilitate client change and growth, works in a broad range of occupational settings, and sometimes shares job titles with related professionals (U.S. Bureau of Labor Statistics, 2014; NOHS, n.d.b). Individuals from a variety of disciplines are members of NOHS and all are considered human services professionals because they believe in the mission of NOHS, contribute to or read its journal, adhere to its ethical code, work in training programs that follow the CSHSE accreditation standards, or are certified as HS-BCPs. Although not all human services professionals are members of NOHS, all members of NOHS identify as human services professionals.

The establishment of the human services profession as an occupational field, with a defined scope and purpose, is supported by the development of degree-bearing educational programs, skill standards, and an ethics code; the founding of a national organization that also publishes a professional journal; and the establishment of an accrediting body that offers a national-level professional credential. We hope that identifying a Holland code for NOHS members can be a precursor to the inclusion of human services professional in the SOC system (U.S. Department of Labor, n.d.a).

THE HOLLAND CODE

John Holland's theory of occupational choice proposes that people express their personality through their career choices (Gottfredson & Johnstun, 2009; Holland, 1973; Holland & Gottfredson, 1976). Holland's theory, considered both a personality theory and a trait and factor theory, suggests that genetic and environmental influences lead people to develop "a hierarchy of habitual or preferred methods for dealing with social and environmental tasks" (Herr, Cramer & Niles, 2004, p. 211). In essence, Holland suggests that if individuals could identify their unique personality styles, they could find a job that best fits their personality and ultimately find satisfaction in their careers.

Six personality types were identified by Holland, each of which represents a way a person relates to the world of work. He assigned each type a name that reflects its general personality style: *Realistic*, *Investigative*, *Artistic*, *Social*, *Enterprising*, and *Conventional* (RIASEC; Holland, 1973; Holland & Gottfredson, 1976). Holland's original work, and an abundance of subsequent research, matched personality type to occupations that best reflect the personality type identified (Ohler & Levinson, 2012).

Holland believed there were numerous occupations that could fit each individual's personality type and ability level (Gottfredson & Johnstun, 2009; Holland, 1973; Holland & Gottfredson, 1976). Although one can be a pure type (i.e., personality is almost exclusively one type) it is more typical for an individual to have two or more types that dominate. By listing an individual's top two or three personality types in order of preference, researchers can identify an occupational code for that person, often referred to as a Holland code. Holland's research supported the theory that the six personality types could be viewed on a hexagon in the following order: R-I-A-S-E-C. Adjacent types, said Holland, share more common elements than nonadjacent

types, and generally an individual's first and second types are close to one another on the hexagon (Naula, 2013). Research on Holland codes has been plentiful and has shown that accurate matches of type to occupation do indeed increase the chances for a person's subsequent job satisfaction (Ohler & Levinson, 2012).

[AU9] Gottfredson and Holland (1996) identified the occupational codes for more than 12,000 jobs, which were published in *The Dictionary of Holland Occupational Codes*. By taking one or more of a number of assessment instruments, such as the Strong Interest Inventory (CPP, n.d.), the Self-Directed Search (PAR, 2013b), or the O*NET Interest Profiler (U.S. Department of Labor, n.d.b), an individual can determine his or her Holland code and match it with jobs of the same code. In addition, by having a select group of professionals identify their Holland code, one can match the typical Holland code to that professional group (Gottfredson & Holland, 1996). For example, counselors tend to be SAE.

Although the human services profession has been in existence since the mid-1960s, to our knowledge no study to identify the Holland code of these professionals has been conducted. In this study we seek to survey members of NOHS in an effort to establish the Holland code of human services professionals, compare the identified Holland code(s) to related professions, and advocate for inclusion of human services professional in the SOC system. The research question addressed in this study is "What is the Holland code of NOHS members?" In addition, we aim to find whether or not NOHS members differ in their Holland code by (a) gender, (b) identification of human services as their primary field, and (c) completion of a degree in human services education at the bachelor degree level or higher.

METHOD

Survey Development

[AU10] Using Qualtrics software, we developed a survey to collect demographic information and data from the O*NET Interest Profiler–Short Form. The demographic information requested was cultural/racial background (White, African American, Hispanic, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, other), age, gender (female, male, other), formal education (associate, bachelor, master's, doctoral degree), and major field of study (human services; counseling; social work; other, with space to write a response). Following the demographic information section was an exact duplicate of the O*NET Interest Profiler–Short Form.

O*NET Interest Profiler–Short Form

[AU11] The O*NET Interest Profiler–Short Form was used to obtain the Holland code of participants. The 60-item form takes between 10 and 15 minutes to complete and shows high agreement with the long form and fairly good agreement with the Interest Finder (Rounds, Su, Lewis, & Rivkin, 2010). Intercorrelation of the scales support the structure of the RIASEC typology, with scales that are closer together being more highly correlated than those further apart. Reliability of the short form showed a

mean Cronbach's alpha value of .81 and test-retest correlations of .82. The O*NET Interest Profiler-Short Form is an open access, web-based instrument developed by the U. S. Department of Labor.

[AU12] Internal consistency reliabilities of the O*NET Interest Profiler-Long Form ranges between .95 and .97, showing high reliability (Lewis & Rivkin, 1999; Rounds et al., 2010). In addition, factor structure of the O*NET Interest Profiler was supported as it was found to be similar to what was identified in other instruments using the RIASEC system. Convergent validity between the Profiler and the Interest-Finder, developed for the ASVAB, was high, once again supporting the Holland model (Rounds et al., 1999). Completion of the O*NET Interest Profiler-Short Form results in a Holland code for the participant.

Procedure

The survey was e-mailed as an embedded link to all NOHS members (1,761). Within the body of the e-mail was a brief statement about the purpose of the survey and noting that the results would be anonymous. If the participant clicked the link, he or she was first asked to read and agree with an informed consent statement. If the participant agreed, he or she was given access to the survey and asked to first answer the demographic questions, followed by the O*NET Interest Profiler-Short Form. Two follow-up e-mails, within a 3-week period of time, were sent after the initial e-mail to encourage nonrespondents to participate.

Once responses were received, demographic information was collated and the answers to the duplicate O*NET Interest Profiler-Short Form were entered into the active online O*NET Interest Profiler-Short Form. Results for each respondent were placed into SPSS 22.0 with their associated demographic information so that follow-up analyses could be completed.

RESULTS

Participants

[AU13] Participants reported their cultural/racial background, age, gender, formal education, and major field of study; except for gender, respondents could select more than one option, so the following percentages are not cumulative. Survey participants ($N = 355$) were identified as 67% White, 29% African American, 5% Hispanic, 6% American Indian or Alaska Native, 0% Asian, < 1% Native Hawaiian or Pacific Islander, and 4% other. For gender, 79% were women, 19% were men, and 1% were other. For education, 23% had doctoral degrees, 43% master's degrees, 34% bachelor's degrees, 16% associate degrees, 13% high school diplomas or the equivalent, and 1% did not finish high school. The majority (68%) stated their major field of study was human services, while 27% indicated other, 20% counseling, and 16% social work. The mean age of participants was 51 years.

Response Rate

The survey link was e-mailed to all NOHS members (1,761), and we hoped to obtain at least 316 responses to allow for a 95% confidence interval with a margin of error

of 5% (Krejcie & Morgan, 1970; Smith, 2004). We received 355 usable responses for a 20.16% response rate. This response rate may be slightly higher than anticipated because some member e-mail accounts remain active even though individuals no longer use the account (e.g., a person leaves his or her job, but the e-mail address remains active). Response rates to e-mail surveys have been mixed and present some unique challenges (Jansen, Corely, & Jansen, 2007; Ye, 2007). The response rate for this survey was about the same as most educational, psychological, or sociological e-mail surveys (Edwards et al., 2002).

Holland Code Analysis

[AU14] We sought to identify the Holland code of NOHS members and to determine whether the code differed by participant gender, education in human services at the bachelor degree level or higher, or whether participants indicated human services was their primary field. A procedure similar to that used by LaBarbera (2005) and by Zanskas and Strohmer (2010) to identify the Holland code of physician assistants and rehabilitation counselors, respectively, was used to address these questions. It combines descriptive analysis, correlational analysis, and repeated-measures multivariate analysis of variance (MANOVA; LaBarbera, 2005; Zanskas & Strohmer, 2010). Means and standard deviations for each SDS subscale were computed for each member of the present sample ($N = 355$; see Table 1). Analyzed descriptively, the Holland code for the respondents in the present study is SAIECR. To determine if there was a meaningful and statistically significant difference in subscale scores, a repeated-measures MANOVA was computed using SPSS 22.0 software, using each of the six scores as a dependent variable. Between-groups factors included participant gender (coded as female-identified or not), participant formal education specifically in human services at the bachelors degree level or higher (or not), and whether the participant identified human services as their primary field (or not). Differences in participants' SDS subscale scores were adjusted by entering participants' age in years as a covariate, thereby statistically controlling for this variable in the analysis (Tabachnik & Fidell, 2013). Reliability of the short form for this analysis showed a mean Cronbach's alpha of .88 (see Table 1).

A correlation matrix was generated to assess the linear relationships between participants' age, gender (female referent group), formal education in human services or not (receiving education referent group), primary discipline (human services referent group), and the total scores for each Holland subscale. As expected, each subscale was strongly and positively correlated to the other subscales with values ranging from .79 to .91; all the relationships between the Holland subscale scores were significant at $p \leq .01$. The only significant relationships noted among the other variables were between participants' reported age in years and their scores on the Investigative and Conventional subscales. A small, significant, and positive correlation was found between age and participants' Investigative scores ($r = .15, p \leq .01$). A small, significant, and negative correlation was found between participants' age and their Conventional subscale scores ($r = -.16, p = .01$).

A planned post hoc comparison was also computed to ascertain which specific Holland subscale score means were statistically different from each other and whether or not

TABLE 1

**Human Services Professional Holland Subscale Mean Scores
and Subscale Internal Consistency Estimates**

Subscale	<i>M</i>	<i>SD</i>	Min	Max	α
Realistic	21.7	7.7	9	50	.89
Investigative	27.5	9.4	10	50	.92
Artistic	32.2	8.3	10	50	.88
Social	43.5	6.1	11	55	.79
Enterprising	27.5	8.1	10	50	.89
Conventional	26.9	8.7	10	50	.91

Note. $N = 355$. Min = minimum; Max = maximum.

these differences held across participant groups. The repeated-measures multivariate test of differences in SDS subscale scores by gender, formal education, primary field, and adjusting for participant age was statistically significant: Wilks's (5,341) = .214, $p < .0001$, 95% CI [29.20, 30.99]. Review of the post hoc pairwise comparisons revealed that participants' mean S scores were the highest, and were significantly different from the other scores across groups. The participants' A scores were the second highest, and were statistically different from all other scores as well. Participants' mean scores on the I, E, and C subscales were not statistically different from each other in the sample as a whole, while participants' mean scores on the R subscale were statistically different from and lower than all other scores. With this information, the profile of the participant sample as a whole would more accurately be represented S-A-I/E/C-R, with horizontal dashes (-) representing statistically significant differences in the mean subscale scores, ranked highest to lowest, and back-slashes (/) representing statistically equivalent mean scores. Review of the between-groups profiles revealed that participants did not differ statistically in their mean Holland subscale scores according to gender, whether or not they indicated receiving formal education in human services, or whether or not they identified human services as their primary field.

DISCUSSION

This survey assessed the Holland code of NOHS members. It was found that they have an S-A-I/E/C-R code with an S that is differentiated from the other five codes and an A that is differentiated from the remaining four codes. Thus, NOHS members can be said to have an SA Holland code, and pairing it with an I, E, or C code would be reasonable. One might view the following codes as typical of those in NOHS: SAI, SAE, or SAC. Although the S is significantly higher than the A, common practice suggests that one could flip the A and the S and also use AS as a possibility when providing career counseling.

Significant differences based on a statistical analysis of subscale scores were not found for any of the subgroups of gender, formal education in human services, and identification of human services as primary field. Although differences were found for age, with higher I scores for older individuals and higher C scores for younger individuals, these differences did not impact the relative positions of the Holland codes. The findings suggest that identification as a human services professional may

be related more to the decision to belong to the national association, or to the field of human services in general, rather than other demographic factors.

With this in mind, one might find the Holland code of many individuals in the human services field, and many of those interested in pursuing a career in human services, as ASI, ASE, or ASC, although those codes would be less common than individuals with an SAI, SAE, or SAC. However, a larger study that looks only at graduates from human services programs would solidify this hypothesis.

For categorization purposes, the Holland code of NOHS members, and possibly of human services professionals in general, would be listed as SA. Not surprisingly, a number of related professions have similar Holland codes, including mental health counselors (SIA); mental health and substance abuse social workers (SIA); psychologists (SIA); marriage and family therapists (SAI); child, family, and school social workers (SE); substance abuse and behavioral disorder counselors (SAI); educational, school, and vocational counselors (S); psychiatric technicians (SER); and health care social workers (SI; U.S. Department of Labor, n.d.c). Of interest, social and human services assistants, the profession most often referred to when trying to find a match to human services professionals, has a Holland code of CSE, which is considerably different from what was found in this study. This may be because the entry-level education requirement of social and human services assistants is high school diploma or equivalent, and that one major role of the job is described as assisting other professionals (U.S. Bureau of Labor Statistics, 2014), neither of which describe NOHS members. In fact, fewer than 1% of NOHS members have only a high school diploma (N. Sparkman-Key, personal communication, August 15, 2015) and human services professionals are seen as generalists, not as assistants to others (Hinkle & O'Brien, 2010; NOHS, n.d.).

Although NOHS members clearly are not similar to human services assistants when examining their Holland codes, they do fit into the general field of helping, as supported by the code of SA (i.e., a similar code to related mental health professionals); the nondifferentiation of the tertiary codes of I, E, or C, supports the notion that human services professionals are generalists. All of this underscores the concept that NOHS members, and possibly human services professionals in general, represent a unique profession that should be included in the SOC system, although further research that focuses only on those who have graduated from human services programs would bolster this contention.

When considering the number of graduates from human services programs nationally, as well as those who are in related professions who embrace the ideals of NOHS and CSHSE, it is probable that there are tens of thousands, if not more, human services professionals today. As a small percentage of human service professionals are NOHS members, assessing only NOHS members as was done in this study is somewhat problematic; it is uncertain if NOHS members are representative of the larger sample of human services professionals. A larger scaled study aimed at a broader base of human services professionals could support the Holland code identification that was found in this study.

Human services professionals have a rich history that dates back to the 1960s (Di Giovanni, 2009). The field has continued to evolve as evidenced by the development of a professional association, skill standards, an ethical code, an accreditation body, a national credential, and a professional journal,. Now that a Holland code has been identified for NOHS members and possibly for human services professionals

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- [AU1: Please verify all author information. Author bio should reflect affiliation at the time this article was written as well as current information for all authors.]
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- [AU3: Keywords are limited to 5; please indicate which keyword to delete.]
- [AU4: (a) Is the underlined sentence beginning with “Today, hundreds of...” correct as revised? Does it preserve the meaning of the phrase “are trained as generalists”? (b) Are there any doctoral-level programs?]
- [AU5: (a) I updated the number of accredited programs from the current list on the CSHSE website, and changed the citation date to 2017 here and in the reference list. Is this change OK? (b) Are any doctoral-level programs accredited by CSHSE?]
- [AU6: (a) I used the official name of the organization in 1996, NOHSE and added the 1996 citation to match an online resource for the standards; see the reference list. Please confirm these changes are OK. (b) NOHS 2015b is missing from the reference list, and there is no NOHS 2015a cited in the manuscript or in the reference list. Please reconcile.]
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- [AU8: (a) Please clarify what is meant by the phrase “shares job titles with related professionals.” (b) Publication information for Hinkle & O’Brien, 2010, NOHS, n.d.a. and n.d.b., and the U.S. Bureau of Labor Statistics, 2014, is missing from the reference list. Please provide.]
- [AU9: “Gottfredson, Holland & Ogawa (1996)” changed to “Gottfredson and Holland (1996)” based on online verification. Is this correct? If not, please provide correct publication information.]
- [AU10: The underlined paragraph was revised for clarity. Please confirm the revision is acceptable.]
- [AU11: Please define the Interest Finder. Do you mean the Computerized Interest Profiler, downloadable for Windows, 180 questions?]
- [AU12: (a) There is no “long form” Interest Profiler listed on the O*Net website. Do you mean the Computerized Interest Profiler? (b) Do you mean between the short form and the Computerized Interest Profiler? (c) Please define “ASVAB”.]
- [AU13: (a) Correct to change “n” to “N” for total number of participants? (b) Correct to add “0%” for Asian? (c) Do you want to provide a range for years of age?]
- [AU14: (a) Should SDS be defined as “self-directed search”? If not, please provide the definition. (b) Table 1 was typeset so subscales are listed in the stub column and the variables are listed across the top. Please confirm this change is acceptable.]
- [AU15: Both CSHSE references were updated via an online search. See text citations, and confirm the updates are ok.]
- [AU16: Provide missing publication information for NOHS n.d.a., n.d.b., and 2015b. Note there is no NOHS 2015a cited in the manuscript. Please reconcile.]
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