Person-environment congruence in relation to career change and career persistence

Ross Donohue *

Department of Management, Monash University, Caulfield, Australia

Received 3 June 2005
Available online 21 February 2006

Abstract

This study examined Holland’s theoretical proposition, that personality-work environment congruence influences career stability and change, with a sample of 212 career changers (respondents who expressed an intent to change career and had engaged in preliminary career change activity) and 249 career persisters (respondents who indicated an intent to remain in their current career). Independent groups ANCOVA (controlling for age and current career tenure) indicated that career persisters scored higher on congruence than career changers, however, the effect size was within the small to medium range. Repeated-measures ANCOVA indicated, with a medium effect size, that career changers moved towards careers that were more congruent with their personality profiles than their current careers. Practical and theoretical implications are discussed.

Keywords: Congruence; Career change; Career persistence

1. Introduction

Holland’s (1997) theory proposes that people are attracted to work environments that conform to their personality orientation. Holland referred to the alignment between personality and work environment, as congruence. He proposed that individuals, whose personalities are poorly matched to their work environments, are more likely to change careers than their congruent counterparts. Additionally, Holland hypothesized that when

* Fax: +61 3 9903 2718.
E-mail address: ross.donohue@buseco.monash.edu.au.
people change careers, they tend to move towards more congruent environments. The purpose of the current study was to examine the validity of these two propositions.

While Holland’s (1997) theory has attracted considerable research attention, the majority of these studies have tended to focus on the influence of congruence on job satisfaction or performance. Although research examining congruence and career choice has generally been supportive of Holland’s (1973) framework, studies investigating congruence and career change/career persistence have produced mixed findings.

Bruch and Krieshok (1981) attempted to examine the congruence hypothesis in relation to vocational change and persistence in a study involving 158 male freshmen engineering students. In this study, the personality orientation of participants was assessed via the VPI. As the engineering curriculum emphasized theoretical mathematics and science, participants were deemed to be studying in a congruent environment if their VPI high-point code was Investigative. Participants with other high-point codes were classified as incongruent. Bruch and Krieshok tracked participants in three successive classes for 2 years. The results of the study indicated that congruent participants were significantly more likely to persist in their classes than those who were incongruent.

Rose and Elton (1982) conducted a study involving 280 college women with stable vocational choices and 327 college women with unstable vocational choices over a 4-year period. In this study, congruence was operationalized as the match between participants’ highest score on the VPI and the primary Holland code for their intended major as a freshman at college. In order to be classified as vocationally stable, participants had to have remained within their field major over the 4 years of their studies. Rose and Elton found that 39% of women in the stable group had made congruent vocational choices, while only 19% of women in the unstable group had made congruent vocational choices. They suggested that these findings provided tentative support for the notion that congruence is influential in the prediction of career change and persistence.

Martin and Bartol (1986) examined Holland’s (1985a) proposition regarding congruence and career change with a sample of 168 new MBA students. In this study, Holland codes that matched participants’ individual major study area, within their business degree, were used as a measure of environment and VPI scores were employed to assess personality. The Iachan Index (Iachan, 1984), a 28 level measure based on comparisons of participants’ three-letter personality codes and their three-letter environment codes, was employed to determine congruence. A modest, though significant, correlation ($r = .16$, $p < .05$) was found between congruence and MBA program completion.

Gottfredson and Holland (1990) conducted a study examining congruence in relation to career change with a sample of 126 bank tellers over a 4-month period. In this study, participants’ personality types were assessed through administration of the VPI, while the bank teller code (CES) was derived from the Occupations Finder (Holland, 1985c). Correlation analysis indicated that, although congruence was positively related to persistence ($r = .13$, $p < .05$), the strength of the association was weak.

Similarly, Meir, Esformes, and Friedland (1994) examined 774 predominantly male job candidates seeking employment in business, organizational, and technology fields. In this study, vocational interest was assessed via the Course Interest Inventory (CII; Meir, 1975) and occupations were categorized according to Roe’s (1956) classification system (a typology which is similar, though not identical to Holland’s framework). Participants were assigned congruence scores based on the proximal distance between their highest interest score on the CII and their field of occupation. Congruence was positively related to career
stability (persistence) for those employed in business \( r = .23, p < .05 \) and technology \( r = .19, p < .05 \) fields, but not for those employed in organizational \( r = .05, p > .05 \) occupations. Meir et al. interpreted these findings as broadly supporting Holland’s (1985a, 1997) congruence hypothesis.

Oleski and Subich (1996) attempted to determine whether career changers contemplated changing to careers that were significantly more congruent than their current careers. The sample consisted of 42 nontraditional students attending a small North American college to acquire the qualification necessary for their desired careers. To determine vocational personality participants were administered the SDS, while environmental types (for both current and intended career) were derived from the DHOC. In this study, two robust measures of congruence (comparisons based on three-letter personality and three-letter environment codes) the K–P Index (Kwak & Pulvino, 1982) and the C-Index (Brown & Gore, 1994), were employed. One-way repeated-measures ANOVA indicated that respondents’ personality codes were significantly more congruent with their intended career than their current career, irrespective of whether the K–P index, \( F(1,41) = 22.79, p < .0001 \), or the C-Index, \( F(1,41) = 17.68, p < .0001 \), was utilized. In accordance with Holland’s (1997) proposition, the findings of this study indicated that adults undertaking career change tended to move towards occupations, which were more congruent with their interests and abilities.

Schaefers, Epperson, and Nauta (1997) examined the relationship between interest congruence and persistence of enrolment in engineering majors in a sample of 278 undergraduate students. They found that congruence (based on single code comparisons) significantly predicted persistence, over and above ability, self-efficacy, and social support. Despite these positive findings, some studies examining the relationship between congruence and career change/career persistence have obtained nonsignificant results.

1.1. Studies failing to support Holland’s propositions

In a study involving 917 nonprofessional workers, Salomone and Sheehan (1985) attempted to examine the validity of Holland’s (1985a) proposition concerning congruence and career change/career persistence. Congruence was based on three-letter comparisons of participants’ VPI scores and their work environments, following classification using the Occupations Finder. Participants in the study were then categorized as either “high congruent” or “low congruent” on the basis of a median split. A simple \( t \) test indicated that there was no significant difference, \( t(1,916) = -.13, p > .05 \), between the high congruent group and the low congruent group in relation to career persistence and change. It should be noted, however, that a number of methodologists (MacCallum, Zhang, Preacher, & Rucker, 2002; Wright, 2003) have recently cautioned against the use of median splits when data are continuous. Specifically, the level of measurement implied by this procedure, where all values below the median are considered equal and all values above the median are considered equal, result in restriction of range problems and significant loss of variance accounted for by the original variable. Indeed, MacCallum et al. stated that, “dichotomization is rarely defensible and often will yield misleading results” (p. 19).

Meir and Navon (1992) examined 95 bank tellers, who worked in enterprising or social branches, during their first 4–6 months of employment. Congruence in this study was based on comparisons of participants’ primary and secondary SDS codes and their
primary and secondary work environment codes. The results of a simple \( t \) test indicated that the congruence levels of tellers who persisted in their career were not significantly higher, \( t(1,94) = -0.82, p > 0.05 \), than those who changed career. This finding, however, should be interpreted with some caution, as congruence was calculated by only comparing participants’ primary and secondary personality codes with their primary and secondary work environment codes. The omission of tertiary comparisons for both personality and work environment suggests that the measure of congruence applied by Meir and Navon may have lacked content validity.

1.2. Summary of empirical findings

Considered together, studies examining differences between career changers and career persisters in terms of their congruence have been equivocal. Some research (Meir & Navon, 1992; Salomone & Sheehan, 1985) has produced nonsignificant findings, while a number of studies found that congruence was a significant factor in differentiating career changers and persisters (Bruch & Krieshok, 1981; Gottfredson & Holland, 1990; Martin & Bartol, 1986; Meir et al., 1994; Rose & Elton, 1982; Schaefer et al., 1997). However, in the significant studies, it should be noted that the effect size for congruence has generally been weak. This aligns with the conclusion reached by Assouline and Meir (1987) who, following a meta-analysis, concluded that the mean corrected coefficient between congruence and career persistence was .15 \((p < .05)\). Consistent with Holland’s (1997) proposition and the majority of the findings of the earlier studies, Hypothesis 1a states that:

Career persisters score significantly higher than career changers in terms of their personality-work environment congruence, when the effects of age and current career tenure are controlled for statistically.

Similarly, studies examining whether individuals who change career tend to move in a direction of greater congruence have also produced inconsistent findings. Oleski and Subich (1996) found that career changers contemplated moving to careers that were more congruent than their current career. Consequently, Hypothesis 1b states that:

Personality-pursued-work-environment congruence of career changers is significantly higher than their personality-current-work-environment congruence, when the effects of age and current career tenure are partialled out.

1.3. Limitations in the research and significance of the current study

There are a number of methodological flaws inherent in the studies cited. An important limitation of the majority of the studies reviewed above concerns the failure to adequately measure work environment types. Rather than directly assessing participants’ work environment types through self-report instruments such as the PCI, most studies have relied on indirect estimations, derived from sources such as the DHOC or the Occupations Finder. The classifications presented in these reference sources are approximations, arrived at primarily through imputations from occupational analysis data for Dictionary of Occupational Titles (DOT; Employment & Training Administration, 1991)
occupations, and therefore constitute a potential source of considerable measurement error.

Another major limitation of many of the studies (Bruch & Krieshok, 1981; Martin & Bartol, 1986; Rose & Elton, 1982; Schaefers et al., 1997) relates to the fact that they have relied on samples composed of university students (completion versus withdrawal from study major) and have attempted to extrapolate these findings to the career context. These attempts at “dovetailing” from change in study major to career change, limit the generalizability of the findings to the employed adult population. Some studies (Bruch & Krieshok, 1981; Rose & Elton, 1982; Schaefers et al., 1997) only matched the primary codes for both personality and environment (first-letter agreement) to determine degree of congruence. By excluding the secondary and tertiary codes for both personality and environment, much of the variance in both domains would not have been captured. Another criticism relates to the fact that some studies (Meir et al., 1994; Schaefers et al., 1997) failed to utilize measures based on Holland’s (1997) theory, while others employed small samples (Meir & Navon, 1992; Oleski & Subich, 1996). Additionally, a number of studies focused on specific occupational samples (Bruch & Krieshok, 1981; Gottfredson & Holland, 1990; Meir & Navon, 1992; Oleski & Subich, 1996), which compromises the generalizability of their findings beyond these occupations.

Finally, nearly all of the studies cited failed to control for the confounding effects of age and career tenure. Empirical support for controlling for current career tenure can be found in the work of Meir and Navon (1992), which indicated that exposure to a work environment, can actually increase congruence. Specifically, bank tellers in their study were found to be significantly more congruent 4–6 months following employment. Similarly, Ostroff and Rothausen (1997) found that teachers with longer career tenure scored significantly higher, in terms of their person-environment fit, than their colleagues with shorter career tenure. Oleski and Subich (1996) controlled for the effects of experience in a new occupation on congruence by only including people in the process of career change. They argued that, as the participants had not actually begun work in their desired environments, their personality and pursued work environment congruence scores would be uncontaminated by the effects of length of time in new careers.

In terms of the potential confounding effects of age, Holland (1997) and Gottfredson and Holland (1996) argued that this variable should be measured and controlled for statistically in studies examining congruence. Additionally, in a recent meta-analysis, Tsabari, Tziner, and Meir, 2005 found that age moderated the relationship between congruence and job satisfaction. While the focus of this meta-analysis was job satisfaction, it is argued that this construct is closely related to the decision to change, or persist in, career and therefore provides additional, albeit oblique, support for controlling for age in studies examining career change.

In evaluating the existing research, Holland (1997) stated that, “successful investigations have typically included diverse and large samples, an appropriate design, and standard outcome measures” (p. 148). The current study attempted to comply with Holland’s prescription and redress a number of these limitations, by applying a robust measure of congruence (C-Index) that compared primary, secondary, and tertiary codes for both personality and work environment. Additionally, it utilized a large heterogeneous sample of employed adults and controlled for the confounding effects of age and current career tenure, and pursued career tenure (pursued career tenure was controlled for in the same way as Oleski & Subich, 1996, by sampling individuals in the process of career change). It is also
the case that the majority of studies examining congruence, in relation to career change and career persistence, have been conducted in the United States. No study has examined the validity of Holland’s (1997) propositions regarding congruence and career change/career persistence in the Australian context and, therefore, this research provides evidence regarding the relevance of this construct cross-culturally. Finally, none of the studies examining Holland’s constructs in relation to career change/career persistence have reported effect sizes or the confidence intervals for effect sizes. Wilkinson and APA Task Force on Statistical Inference (1999) has recommended that effect sizes and their attendant interval estimates should always be reported in preference to dichotomous accept–reject decisions afforded by null hypothesis significance testing.

2. Methods

2.1. Sample

The sample comprised 249 career persisters and 212 career changers, employed in a range of full time occupations in Australia. Participants ranged in age from 23 to 57 years, with a mean age of 37.79 years and 268 (58.1%) were female, while 193 (41.9%) were male. With regard to highest level of education, 54.9% had completed undergraduate or postgraduate qualification degrees, 18.2% had diplomas or associate diploma qualifications, and 26.9% held high school level qualifications. In terms of the primary occupational types of the sample, 15.2% were classified as realistic, 11.5% as investigative, 8.9% as artistic, 29.1% as social, 24% as enterprising, and 11.3% as conventional. Pairwise comparisons of differences between primary environmental types in relation to congruence levels for the total sample were conducted, using Tukey’s test, however, none were found to be statistically significant. The average current career tenure for the total sample was 6.8 years.

2.2. Measures

2.2.1. Participant information

Participants completed a research questionnaire, which assessed information such as age, gender, career tenure, highest level of education, and current career. In addition, career changers were also asked to specify their intended career as well as activities undertaken to activate their career change.

2.2.2. Vocational personality

The Australian version of the Self-Directed Search (SDS; Holland, 1985b) was utilized to assess vocational personality. The SDS is a 228-item self-report measure, specifically designed to estimate an individual’s resemblance to each of Holland’s six personality types. Items are oriented around Activities (9 items per scale), to which like or dislike responses are given, Competencies (9 items per scale), and Occupations (14 items per scale) to which yes or no responses are given, and two numerical ratings of self-estimated Abilities (7-point likert scale). Six summary scores are used to obtain codes that reflect the highest areas of interest. The corresponding letters of the three highest scores are then used as the participant’s personality code. Internal consistency estimates for the six SDS summary scales have been reported to range from .87 to .92 in an adult sample (Holland, 1985c). In the current study, $z$ coefficients for the SDS summary scales ranged from .82 to .88.
2.2.3. Vocational environment

The Dictionary of Holland’s Occupational Codes (DHOC; Gottfredson & Holland, 1996) was used to classify each participant’s vocational environment. Occupation titles can be located in the DHOC and matched to a corresponding three-letter environment code. These codes describe an occupation in terms of its primary, secondary, and tertiary characteristics when interpreted through Holland’s (1997) framework.

2.2.4. Congruence

The C-Index, developed by Brown and Gore (1994), was utilized as a measure of personality and work environment congruence. This index is based on the circumplex assumption proposed by Holland (1997) and compares the respective primary, secondary, and tertiary codes of both personality and environment. The C value is calculated using the following formula:

\[ C = 3(X_i) + 2(X_i) + (X_i). \]

In the above equation, scores of 3, 2, 1, or 0 are assigned to \( X_i \), depending on the hexagonal position of the corresponding personality and work environment codes (3 = identical position, 2 = adjacent position, 1 = alternate position, and 0 = opposite position). Primary, secondary, and tertiary comparisons are weighted (primary = 3, secondary = 2, tertiary = 1) and the weighted \( X_i \) integer values are summed to arrive at \( C \), which may range from 0 to 18. A computer program, developed by Gore (1994), was utilized to calculate respondents’ C-Index scores.

2.2.5. Career change/career persistence intent

Career change versus career persistence intent was determined on the basis of two criteria. First, participants were required to respond to a dichotomous question asking whether they intended to change, or remain in, their current career. Those who indicated that they were intending to change career were required to record the activities they had undertaken to activate this process. To be classified as a career changer, participants had to indicate intent to change career and demonstrate agency in terms of undertaking career change activity (for example, undertaking part-time study relevant to their intended career). This operational definition of career changers is consistent with the approach applied by Oleski and Subich (1996). Participants who indicated that they were not intending to change career and who had not engaged in any career change activity were classified as career persisters.

2.3. Procedure

Initially, the researcher contacted individuals, employed in a range of occupations, by utilizing personal, academic, and consultancy referrals. These individuals were asked to act as research representatives in their organizations. The research representatives were provided with packages containing a covering letter, the questionnaires, and a reply-paid envelope. These research representatives then distributed the packages to work colleagues in their organizations. The covering letter explained the purpose of the study and assured potential respondents that their participation was voluntary and that their responses would remain confidential. Participants completed the questionnaires anonymously, in their own time, and returned them to the researcher using the reply paid envelopes. A total
of 500 questionnaires were returned, however 39 cases were excluded from the sample, as although these respondents indicated intent to change career, they had not undertaken any career change activity. This resulted in a usable sample of 461 cases, however, as the research representatives distributed the questionnaires in their respective organizations, using a convenience sampling procedure, it was not possible to systematically identify the refusal rate, nor the reasons for not participating. Participants’ three-letter codes on the SDS were then compared with their current career codes (as well as the pursued career codes for the career changer group) using the DHOC. Two judges independently assigned codes to careers and inconsistent codes and discrepancies were resolved by a third judge. Participants’ SDS three-letter codes and work environment three-letter codes were then compared using the $C$-Index formula described above. When ties among SDS scores occurred, a congruence score was computed for each possible three-letter personality-environment combination and these scores were averaged to determine an individual’s final congruence score. This method of dealing with tied SDS scores is consistent with protocols in previous studies (Strahan & Severinghaus, 1992; Young, Tokar, & Subich, 1998).

3. Results

Prior to analysis, checks of the theoretical assumptions underlying Analysis of Covariance (ANCOVA) were undertaken, including normality, homogeneity of variance, and homogeneity of regression slopes. These assumptions were met and indeed Tabachnick and Fidell (2001) have stated that ANCOVA is quite robust to any violations.

Correlation analysis indicated that age ($r = .10, p < .05$) and career tenure ($r = .16, p < .01$) were both significantly related to congruence (the dependent variable), which suggested that these variables were potential covariates. Additionally, while age and current career tenure were significantly correlated ($r = .46, p < .01$), the coefficient did not exceed the .7 criterion for multicollinearity suggested by Hair, Anderson, Tatham, and Black (1998).

Hypothesis 1a stated that career persisters would score significantly higher than career changers in terms of their personality-work environment congruence, when the effects of the covariates were held constant. One-way independent groups Analysis of Covariance (ANCOVA) was utilized to evaluate this hypothesis. In the ANCOVA procedure, scores on the $C$-Index (congruence) were entered as the dependent variable. Age and current career tenure were entered as covariates, while the dichotomous variable of intent to change career/persist in career, served as the independent variable.

The analysis indicated that there was a statistically significant difference, $F(1,457) = 18.08, p < .01$, between career changers and career persisters in terms of their levels of person-environment congruence, with the effects of the covariates partialled out. The actual nature of the difference between career persisters and career changers, in relation to congruence, may be determined by reviewing the group means that are presented in Table 1. Examination of Table 1 indicated that career persisters scored higher in terms of their level of person-environment congruence, when compared with career changers. The partial eta squared ($\eta_p^2$) for congruence was .04, which indicated that 4% of the variance in the intent to change, or persist in, career was accounted for by congruence. The exact 95% confidence interval (Smithson, 2001) for $\eta_p^2$ ranged from .01 to .08, which indicated that the population effect size was estimated to be small to medium by Cohen’s (1988) standards.
Hypothesis 1b stated that the levels of personality-pursued-work-environment congruence of career changers would be significantly higher than their personality-current-work-environment congruence, with the effects of the covariates held constant. In order to assess Hypothesis 1b, one-way repeated-measures ANCOVA was employed. The 212 career changers were selected for inclusion in this analysis. In addition to their personality-current-work-environment scores, $C$-Index values were calculated between each career changer’s SDS personality code and their pursued work environment code. In the analysis, personality-current-work-environment scores and personality-pursued-work-environment scores were entered as within-subjects variables, at levels 1 and 2, respectively. Age and current career tenure were covariates in this analysis.

The results of the repeated-measures ANOCVA demonstrated that there was a statistically significant difference, $F(1, 207) = 21.79$, $p < .01$, between current career congruence and intended career congruence. Examination of the current and intended career congruence means (presented in Table 2) provides an indication of the direction of this difference. Comparison of the means demonstrated that the personality summary codes, of those respondents intending to change career, were significantly more congruent with their pursued careers than their current careers. A medium effect size for congruence was obtained ($\eta_p^2 = .10$) which indicated that 10% of the variance in the decision to change to pursued careers was explained by congruence, when the effects of the covariates were partialled out. The estimated 95% confidence interval for $\eta_p^2$ (Smithson, 2001) was relatively wide, as it ranged from .03 to .18, indicating some lack of precision in this estimate.

4. Discussion

This study examined Holland’s (1997) theoretical propositions concerning the relationship between congruence and career change and persistence. Career persisters scored
significantly higher than career changers in terms of their congruence, with the effects of age and career tenure held constant. This finding was consistent with those obtained in a number of earlier studies (Bruch & Krieshok, 1981; Gottfredson & Holland, 1990; Martin & Bartol, 1986; Meir et al., 1994; Rose & Elton, 1982; Schaefers et al., 1997). The effect size for congruence in the current study was within the small to medium range and explained 4% of the variance in intent to change, or persist in, career.

A second finding of this study indicated that the levels of personality-pursued-work-environment congruence of career changers was significantly higher than their personality-current-work-environment congruence (controlling for the effects of the covariates). These results aligned with the finding of Oleski and Subich (1996). A moderate effect size for congruence was observed, as it accounted for approximately 10% of the variance in the decision to change, or persist in, career.

The current study provides a number of methodological improvements over earlier studies, as a large sample of adults employed in diverse occupations was utilised, a robust measure of congruence was applied, control variables were included in analyses, and effect sizes and confidence intervals were calculated. Considered together, the findings of this study provide support for Holland’s (1997) theoretical propositions regarding congruence and career persistence and change. Additionally, as the sample in this study was composed of Australian workers, the results provide evidence of the cross-cultural validity of Holland’s construct. However, given that congruence is an important concept in his theoretical framework, these findings suggest that reduced emphasis should be placed on this construct and that other factors, that may be more influential in determining career change and persistence, should be considered for inclusion. Indeed, Holland (1996) when commenting on the “general inefficiency of the congruency hypothesis” (p. 401), suggested that the inclusion of variables such as vocational identity and personal circumstances (for example, family commitment), may improve predictions of career change and persistence.

The findings of the current study also have practical implications for human resource management and organizational behavior, as Holland’s (1997) framework is used extensively in recruitment and selection, career counseling, and job design for the purposes of choosing and retaining productive and satisfied workers. As congruence, or the degree of fit between personality and career, was found to have a small to medium effect size in terms of determining career persistence or change in this study, it raises the question of whether inordinate emphasis has been placed on this construct. At the very least, the findings of the current study suggest that other relevant measures should be utilized, in concert with congruence, when making these decisions.

An important limitation of the current study concerned the fact that work environment codes were determined through reference to the DHOC. As discussed in the limitations of other studies, the occupational codes listed in this reference are imputations based on job analysis data from the DOT. As a consequence, the codes contained in the DHOC provide only indirect estimates when categorizing occupations. To obtain codes for specific occupations, direct incumbent-based measures such as the PCI should be applied (Gottfredson & Richards, 1999). Indeed, Lent and Lopez (1996), using both the DHOC and modal types in the environment to categorize occupations, found that the method of coding influenced the calculation of congruence and concluded that “the greater the specificity in assigning codes, the greater the chance of demonstrating theory-predicted relations” (p. 140). Additionally, it should be noted that the DHOC provides approximate classification.
of US occupations and therefore there is some uncertainty as to how representative these classifications are of Australian work environments.

Another limitation of the current study concerned the fact that career change intention was measured dichotomously. It is likely that career change intent is not an “either-or” decision but rather falls along a continuum and therefore it should be measured using a continuous scale. Moreover, dichotomous measures have been found to result in information loss, reduce power in statistical tests, and increase the probability of Type II error (Streiner, 2002).

A final limitation of the study was that those classified as career changers were only in the nascent stages of the process (expressed intent and initial activity to activate change) and therefore, there is no guarantee that they will successfully complete their career change. The rationale for not focusing on individuals who had already changed career related to issues of retrospectivity, variations in the duration since the career change, the fact that these variables are more salient during the change process, and contamination from the new work environment.

Future studies examining congruence and career change should utilize direct methods for assessing environment codes such as the PCI, rather than relying on indirect approximations derived from sources such as the DHOC. Additionally, subsequent studies should apply longitudinal, rather than contemporaneous, designs, however, instead of focusing on university students as has tended to be the practice in the past, employed adult samples should be assessed.

References


