Short Communication

Development of a brief screening questionnaire for histrionic personality symptoms

Christopher J. Ferguson [a,*], Charles Negy [b]

[a] Stetson University, United States
[b] University of Central Florida, United States

ABSTRACT

Compared to other personality disorders such as borderline or antisocial, histrionic personality disorder has received comparably little attention in the research and clinical literature. Currently, there is no freely accessible, stand-alone clinical measure for histrionic symptoms. In this article, we report two studies that examined the reliability, convergent validity and factor structure of a new measure of histrionic personality disorder symptoms, the *Brief Histrionic Personality Scale* (BHPS). Study 1 describes the initial development of the measure with 661 young adults. An initial pool of 36 items was narrowed down to a 11-item, reliable scale that converged highly with the Colligan/Morey/Offord MMPI scale for histrionic symptoms, as well as with a measure of extraversion. Exploratory factor analysis revealed a two-factor structure to the measure. In study 2, confirmatory factor analysis found that the two-factor model was a good fit to the data on a sample of 340 young adults. Taken together, these results suggest that the BHPS is a promising research and clinical tool for histrionic personality disorder.

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1. Introduction

Histrionic personality disorder (HPD) is a clinical syndrome in which individuals assume an interactional style marked by seductiveness, emotional shallowness, and dramatics (American Psychiatric Association, 2013). As described in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5; American Psychiatric Association, 2013), individuals diagnosed with HPD are motivated to seek the center of attention, are seductive, flirtatious or sexually provocative with others, use highly theatrical expressions of emotion, are emotionally shallow and often inconsiderate of the emotions of others. Due to their theatrical and extraverted nature, individuals with HPD may have clusters of admirers, although often present with difficulties in maintaining deep, mutually satisfying relationships. Prevalence rates estimate that about 2–3% of the population is diagnosable with HPD (Kraus & Reynolds, 2001). The condition is most often diagnosed in women (Millon & Davis, 1996), although some research has suggested greater equality in the prevalence of HPD (Nestadt, Romanoski, Chahal, Merchant, et al., 1990).

Kraus and Reynolds (2001) state that histrionic personality disorder is associated with increased risk for an array of other disorders, including depression and anxiety, suggesting that HPD may be an important clinical syndrome for investigation. Histrionic personality has been found to be associated with a number of potential negative outcomes including decreased marital satisfaction and success (Disney, Weinstein, & Oltmanns, 2012), increased rates of hypochondriacal concerns (Demopulos et al., 1996), and increased rates of depressive disorders (Bockian, 2006). Compared to other Cluster B personality disorders, HPD has received comparatively little research attention. For instance, conducting a "subject" search on PsychINFO (10/20/13) with the search term "Histrionic Personality Disorder" returned 405 hits. By contrast, a similar search with "Narcissistic Personality Disorder" returned 1573 hits, and "Antisocial Personality Disorder" returned 4694 hits (the related term psychopathy returned 1716 *unique* hits). Moreover, "Borderline Personality Disorder" returned 6104 hits. Of the 12,776 search hits related to cluster B personality disorders as subjects, HPD accounted for only 3%.

Although there likely are multiple reasons for the paucity of attention to HPD, one element may be related to the lack of a freely-available, easy to use, short, reliable and valid measure of HPD symptoms. The Millon Clinical Multiaxial Inventory (MCMI-III; Millon, Davis, Millon, & Grossman, 2006) is the only major clinical test to include a specific histrionic scale. By contrast, the Minnesota Multiphasic Personality Inventory (MMPI-2; Hathaway & McKinley, 1989) does not include a specific HPD scale, although

histrionic personality traits might be inferred from other scales. Colligan, Morey, and Offord (1994) developed a reliable and valid histrionic scale for the MMPI-2. However, using this MMPI-2 scale is inconvenient as no scoring template exists for clinicians. Neither the MCMI-III nor MMPI-2 scales are necessarily problematic, but they are imbedded in larger personality measures that are long and costly and, in the case of the MMPI-2 histrionic scale, scoring is inconvenient. As such, there would appear to be room for a clinical measure of HPD that is brief, yet reliable, free-standing, easy to score and freely available to the clinical and research community. This article describes the development of a new clinical HPD measure, the *Brief Histrionic Personality Scale* (BHPS) across two studies.

2. Study 1

2.1. Method

2.1.1. Participants

Participants in study 1 consisted of 661 young adults recruited from a public university in the Southeastern region of the United States. Regarding gender, 431 (65.2%) were female and 230 (34.8%) were male. Regarding ethnicity, 472 (71.4%) self-identified as non-Hispanic White, 82 (12.4%) as Hispanic or Latino/a, 54 (8.2%) as African American, 20 (3.0%) as Asian American, and 33 (5.0%) as "Other." The average age of participants in this sample was 19.19 years ($SD = 2.52$). Their average level of education was equivalent to a college sophomore.

Test–retest reliability was examined on a smaller, independent sample of 37 individuals drawn from the same population of young adults. Their demographic characteristics were similar to those of the larger sample above, in that the majority was female (70%) and non-Hispanic White (70%), and they averaged 21.3 years in age ($SD = 2.32$).

2.2. Convergent validity measures

2.2.1. MMPI histrionic scale

Colligan et al. (1994) developed and validated a scale for HPD from items comprising the MMPI-2. The MMPI Histrionic scale consists of 13 true–false items and, given the sometimes murky MMPI-2 questions, consists of items presumably linked conceptually to HPD symptoms. Colligan et al. (1994) developed their scale from a pool of theoretically relevant items that were then empirically tested for their ability to discriminate between individuals psychiatrically diagnosed with HPD from normal controls. Coefficient alpha for this scale with our current sample of participants was .60.

2.2.2. Extraversion – International Personality Item Pool (IPIP; Goldberg et al., 2006)

An established ten-item Likert-scale questionnaire representing the "Big-Five" construct of extraversion was drawn from the IPIP. Scales drawn from the IPIP have well established reliability and validity in the research literature, and are freely available. With our sample the extraversion questionnaire obtained a coefficient alpha of .89. Given that charm, seduction and attention seeking are key components of HPD, it is expected that individuals with HPD features will score highly on measures of extraversion. Histrionic traits and extraversion have been known to have been linked for some time (Gore, Tomiatti, & Widiger, 2011; Paykel & Prusoff, 1973).

3. Results

Initially, we generated a pool of 36 potential items that related conceptually to DSM-5 criteria for the diagnosis of HPD. The measure consisted of 4-point Likert-type statements with response anchors ranging from "never true" to "always true." Items forming the initial version of our BHPS are presented in Appendix A (final version items are marked with an asterisk).

The initial 36 items demonstrated a coefficient alpha of .80, lending confidence that we had established a robust pool of conceptually consistent items. In this initial stage of development, we endeavored both to eliminate any poor items and to narrow down the pool of items to a shorter, but reliable and valid measure that would be easy to use. We began by conducting a factor analysis to examine for high loading between items. Our intent was not to examine subscales within the BHPS but rather to eliminate redundant items to shorten the survey without losing reliability.

Exploratory factor analysis was conducted using maximum likelihood extraction with promax rotation. Promax rotation was used as the factor structure was expected to be oblique in nature. Results indicated nine separate clusters of items. These clusters were examined for items with very high factor loadings (.60 or above) which likely indicated conceptually similar items. This resulted in the pruning of 12 items. Item-total correlations for the remaining scale were then examined all items with correlations below .30 were eliminated. This narrowed down the number of items to 11.

The factor analysis was then re-run as before, resulting in a more concise two-factor solution. Rotated factor loadings for the two factors are presented in Table 1. Unrotated eigenvalues were 3.35 for the first subscale and 1.44 for the second. Parallel analysis using Monte Carlo PCA (Watkins, 2006) supported the extraction of these two factors (criteria eigenvalues were 1.21 and 1.15). These two factors were correlated .52. This final 11-item scale achieved a coefficient alpha of .76. The first subscale (Seductiveness) had a coefficient alpha of .67 with the second (Attention seeking) of .74.

3.1. Test–retest reliability

The test–retest reliability of the full scale and factor subscales were examined using a smaller ($n = 37$), independent sample of young adults. Participants completed the BHPS twice with a one-week interval in between test sessions. Results indicated good overall test–retest reliability for the BHPS with a test–retest coefficient of .91. Test–retest reliability for the seductiveness subscale was .82 and for attention seeking .91. These results offer preliminary evidence of the test–retest reliability for the BHPS.

3.2. Convergent validity

Convergent validity of the BHPS was tested against the Histrionic scale developed by Colligan, Morey, and Offord (1994) from the MMPI-2 as well as the IPIP extraversion index. BHPS total scores were correlated against these measures. The interpretation

Table 1
Factor loading for individual items in Study 1 and Study 2.

Item number	Study 1 (Exploratory)	Study 2 (Confirmatory)
Seductiveness		
2	.66	.62
6	.31	.41
10	.58	.58
28	.49	.46
32	.41	.33
35	.59	.58
Attention seeking		
4	.64	.67
5	.62	.51
20	.73	.68
24	.48	.53
27	.53	.48

of validity coefficients is less standardized than for reliability coefficients (Cronbach, 1990). However, there is some agreement that validity coefficients above .30 are adequate, and those above .40 are ideal for demonstrating validity (Anastasi & Urbina, 1996). In this study the BHPS correlated .47 with the scale from the MMPI-2 and .46 with the IPIP extraversion index. These results indicate good initial support for convergent validity.

3.3. Gender differences

T-test analyses indicated that the BHPS did not differ by gender [*t* (659) = 1.62, ns; *r* = .06]. This indicates scores are similar across both men and women respondents.

4. Study 2

Study 2 was designed primarily to replicate and confirm the factor structure of the BHPS developed in study 1 using confirmatory factor analysis, as well as provide further evidence of the internal consistency and convergent validity of the BHPS.

4.1. Methods

4.1.1. Participants
Participants in study 2 consisted of 340 young adults recruited from the same institution indicated in study 1. Regarding gender, 240 (70.6%) were female and 100 (29.4%) were male. Regarding ethnicity, 246 (72.4%) self-identified as non-Hispanic White, 49 (14.4%) as Hispanic or Latino/a, 19 (5.6%) as African American, 10 (2.9%) as Asian American, and 16 (4.7%) as "Other." The average age of the current sample of participants was 19.75 years (*SD* = 3.60). Their average level of education was equivalent to a college sophomore.

4.2. Convergent validity measures

As with study 1, the histrionic scale derived from the MMPI-2 (alpha in this sample = .63) and the IPIP extraversion scale (alpha in this sample = .89) were used to confirm convergent validity with the BHPS.

5. Results

5.1. Confirmatory factor analysis

In CFA analyses, goodness of fit can be evaluated both through a non-significant chi-squared analyses, as well was by several goodness of fit indices, such as the Adjusted Goodness of Fit Index (AFI). Goodness of fit on indices such as the AFI is indicated by results of .90 or higher. The Root Mean Squared Error of Approximation (RMSEA) is often suggested as one of the better fit indices, as it is less sensitive to sample size (Fabrigar, Wegener, MacCallum, & Strahan, 1999). An RMSEA value less than .10 is considered an indication of good fit. With the current analyses, AFI, the Comparative Fit Index (CFI), and RMSEA were used to analyze goodness of fit. Results from the CFA confirmed that the two-factor model developed in study 1 was a good fit to the data χ^2 (43; *n* = 340) = 105.70, *p* ⩽ .001; AFI = .92; CFI = .91; RMSEA = .066. Standardized parameter estimates for the factors ranged between .33 and .68 and are presented in Table 1. The two subscales correlated *r* = .90 with each other and, for the total scale score, *r* = .90 for the seductiveness subscale and *r* = .86 for the attention seeking subscale. Overall, these results indicate high degree of consistency between the items.

5.2. Reliability and convergent validity

Internal consistency reliability for the total scale with the second sample was .79. Cronbach alphas for the individual factor scores were .67 for subscale 1 and .72 for subscale 2. The total BHPS scale correlated .53 with the histrionic scale derived from the MMPI-2, and .51 with the IPIP extraversion scale, thereby confirming good convergent validity with these measures.

6. Discussion

The two studies discussed in this article present the development of a new measure of HPD for clinical and research use. Results indicate that, with young adults, the current 11-item version is highly reliable and valid. The BHPS demonstrated good internal consistency and test–retest reliability and correlated well with an established measure of HPD derived from the MMPI-2 and with the IPIP index of extraversion. A two factor model of histrionic symptoms emerged and was confirmed through use of exploratory and confirmatory factor analysis strategies. As these two factors were highly correlated, the items on the scale appear to be consistent.

As with the development of any new measure, validity can only be established through multiple studies using multiple methods on diverse samples of participants. Our current study is limited primarily by the use of a non-clinical college student population which does not allow us to examine for the utility of the measure as a clinically validated instrument. We also believe that future studies may wish to employ more effective criterion instruments for validation such as structured diagnostic interviews (e.g. SCID-II) for identifying and diagnosing HPD. Nonetheless, these initial results are promising. Future research should focus on extending the investigation of this new measure into clinical populations, older populations, as well as examining the clinical sequelae of HPD.

Development of this BHPS is important given that currently, no brief, stand-alone, publicly accessible measure of HPD exists for clinical or research use. HPD remains a relatively poorly researched personality disorder, particularly in comparison to other Cluster B disorders. It is hoped that this new instrument helps to open up this research field and simultaneously provides a useful clinical tool for screening for HPD symptoms.

Appendix A. The brief histrionic personality scale

Please answer the following questions using the scale:				
	1 Never true	2 Seldom true	3 Very often true	4 Always true
(1) I get bored with work tasks easily	1	2	3	4
(2) I find it exciting to flirt with others[*]	1	2	3	4
(3) A long stable relationship is better than new love	1	2	3	4
(4) I like to be the center of attention[*]	1	2	3	4
(5) I always seem to have new friends[*]	1	2	3	4

(continued on next page)

(6) I'd prefer not to commit to just one romantic partner*	1	2	3	4
(7) I prefer to have just a few close friends	1	2	3	4
(8) I get excited or cry very easily	1	2	3	4
(9) I believe that it's important to hide your emotions	1	2	3	4
(10) I flirt even with people who I'm not attracted to*	1	2	3	4
(11) Few things are as rewarding as praise from others	1	2	3	4
(12) I don't want to be liked just because of my appearance	1	2	3	4
(13) I tend to change my romantic partners often	1	2	3	4
(14) It's easy for me to talk to people I don't know	1	2	3	4
(15) I feel shy when other people say nice things about me	1	2	3	4
(16) I like to dress in a way that flatters my body	1	2	3	4
(17) I'm more dramatic than most people	1	2	3	4
(18) A committed relationship is more fun than flirting with strangers	1	2	3	4
(19) I get easily upset if people criticize me	1	2	3	4
(20) I tend to be the "life of the party"*	1	2	3	4
(21) I tend to cheat on my romantic partners	1	2	3	4
(22) I'm uncomfortable touching people I don't know well	1	2	3	4
(23) I try to dress conservative and avoid flashy clothes	1	2	3	4
(24) A lot of people find me sexually appealing*	1	2	3	4
(25) I sometimes make up stories to get attention	1	2	3	4
(26) My group of friends met each other through me	1	2	3	4
(27) I know how to make people like me right away*	1	2	3	4
(28) I get frustrated when people don't notice me*	1	2	3	4
(29) I'm not interested in marriage	1	2	3	4
(30) I try not to brag too much about my accomplishments	1	2	3	4
(31) If I see something I want, I want it right away	1	2	3	4
(32) I'm very interested in material things like cars, shoes, etc.*	1	2	3	4
(33) I have enough love for multiple romantic partners	1	2	3	4
(34) Other people usually notice me right away	1	2	3	4
(35) I like it when I know someone desires me sexually*	1	2	3	4
(36) Shopping is a necessary evil that I try to avoid	1	2	3	4

Note: Items #3, 7, 9, 12, 15, 18, 22, 23, 30, 36 are reverse coded.
* Indicates item retained in final scale.

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