

Schizotypal Traits in a Non-Clinical Sample from Hawai'i

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CASE REPORTS AND SHORT COMMUNICATIONS

Abstract: Most research investigating schizotypal traits, and linking schizotypal personality disorder (SPD) to later schizophrenia, has used Caucasian samples. The lack of cross-cultural comparisons on SPD trait scales inhibits confidence in generalizing the link between SPD and schizophrenia to non-Caucasian populations. The few studies investigating cross-cultural rates of schizotypal traits in non-clinical samples report mixed findings with respect to cultural variation. This study reports rates of schizotypal traits in an ethnically and culturally diverse non-clinical sample (N = 353) in the state of Hawai'i using the Schizotypal Personality Disorder Questionnaire-B (SPQ-B). Analyses did not detect significantly elevated rates between ethnic groups on the Cognitive/Perceptual, Disorganized, or Total SPQ Score Scales. Significant differences between Caucasians and Asians, as well as between Caucasians and Mixed Ethnicity on the SPQ-B Interpersonal Scale suggest relatively less shyness and more sociability in the Caucasian group. Generally, findings of no significant differences between ethnic groups on the SPQ-B suggest that rates of schizotypy are similar across ethnic groups in Hawai'i. (PHD 2004 Vol 11 No 1 Pages 84 - 86)

Introduction

Schizotypal personality disorder (SPD) is marked by a pattern of social and interpersonal deficits, cognitive and perceptual distortions, and eccentricities of behavior. Evidence from family, twin, and adoption research demonstrates that schizotypal personality disorder may have a similar etiology as schizophrenia. Generally, this research supports the "two hit" (diathesis-stress) model of schizophrenia, in which the genotype of schizophrenia is phenotypically expressed as a subclinical form of schizophrenia. Kety suggested that schizotypal personality disorder might reflect a "first approximation" of schizophrenia, warranting the further investigation of SPD as a category along a continuum towards schizophrenia.

Schizotypy across cultures

Most research investigating schizotypal traits, and linking schizotypal personality disorder to later schizophrenia, has used Caucasian samples. The lack of cross-cultural comparisons on SPD trait scales inhibits confidence in generalizing the link between SPD and schizophrenia to non-Caucasian populations. The few studies investigating cross-cultural rates of schizotypal traits in non-clinical samples report mixed findings with respect to cultural variation. A study by Chmielewski and colleagues reported that African-American students score significantly higher than Caucasian students on measures of psychosis proneness. Chen and colleagues reported that correlates and score distributions of a measure of SPD differed for Taiwanese subjects compared to those in English-speaking populations. The authors suggested that cultural differences might account for differences in SPD profiles. Reynolds and

colleagues, however, reported schizotypal symptom invariance across cultures. More research investigating schizotypal traits in various ethnic/cultural groups is needed to clarify variations of SPD expression, and to establish the nature of the relation between SPD and schizophrenia, in non-white populations.

Hawai'ian culture and perceptual experiences

Traditional Hawai'ian culture in many instances accepts the supernatural. According to Young, supernatural forces, in balance with natural forces, are at the core of traditional Hawai'ian spirituality. Belief in the presence of spirits or *aumakua* in the physical world, psychic experiences, visions, and ghost sightings are all quite common in traditional Hawai'ian culture. Young writes that "The Christian dictum that 'God is everywhere' is put by Hawai'ians into concrete symbols encountered in everyday life which have special meaning and elicit special response or behavior". Furthermore, Pukui and colleagues refer to the common phenomenon of hearing of supernatural voices or sounds as *'ulaleo*. She stated that "visions and voices are today just as existent, lively and eloquent as ever".

In a culture in which at least some belief in the supernatural is normal, the challenge for the Western mental health practitioner becomes one of distinguishing clients' culturally acceptable experiences from the signs and symptoms of thought disorders. The present study partially addresses this challenge by administering a Western questionnaire designed to detect, among other things, cognitive and perceptual distortions characteristic of SPD, to a community sample of college students in Hawai'i. Elevated rates of cognitive and perceptual distortions in a particular ethnic group among a non-clinical sample would suggest the need for heightened sensitivity when distinguishing accepted cultural phenomenon from psychopathology.

This study reports rates of schizotypal traits in an ethnically and culturally diverse non-clinical population in the state of Hawai'i using the SPQ-B (abridged Schizotypal Personality Questionnaire). The SPQ-B has been established as a sound psychometric instrument for the assessment of schizotypal traits. The current study compares rates of SPD symptoms across ethnic groups represented in this sample (Hawai'ian, Asian, Caucasian, and Mixed Ethnicity). Overall, this work increases understanding of rates of schizotypal traits in a non-clinical sample of various ethnic groups in Hawai'i.

Methods

Non-clinical participants (N = 372) were recruited from undergraduate classes at a major public university (University of Hawai'i at Manoa). The mean age of participants was 21.7, and 70.6% of the subjects were female. Participants were provided extra credit for their participation. Consent for participation was obtained. Participants completed a modified version of the Schizotypal Personality Disorder Questionnaire (SPQ-B). The SPQ-B is a 22-item questionnaire asking questions regarding schizotypal traits. The SPQ-B generates 3 factors relevant to schizotypal personality: Cognitive/Perceptual (measuring ideas of reference, odd beliefs/magical thinking, unusual perceptual experiences, paranoid ideations), Interpersonal (social anxiety, no close friends, constricted affect, paranoid ideations), and Disorganized (odd behavior, odd speech). Higher scores on the SPQ-B factors indicate higher rates of schizotypal symptoms. Cronbach's alphas of the three factors in this sample ranged from .61 to .81, indicating modest to adequate internal reliability.

Participants identified with a large number of ethnic groups (e.g., Hawai'ian, Asian, Caucasian, Mixed, Latino, African American, Pacific Islander). Because there were only a few subjects who identified as solely African American, Latino, or Pacific Islander, these cases were excluded from the inferential analyses, resulting in a final sample size of N = 353. Additionally, this study was particularly interested in people identifying as Hawai'ian, however, only a very small group (n = 6) identified as solely Hawai'ian. Given the specific interest in Hawai'ians, anyone who indicated Hawai'ian ethnicity, regardless of other ethnicities, was included in the "Hawai'ian" group. Therefore, the Hawai'ian group is more accurately defined as a mixed ethnicity group with at least some Hawai'ian identification.

Results

One-way ANOVA comparing mean SPQ scales on three

of the four scales (Cognitive/Perceptual; Disorganized; SPQ Total) by ethnic groups (Hawai'ian, Asian, Caucasian, Mixed Ethnicity) did not yield significant differences. Scores on the SPQ Interpersonal Scale did, however, differ across groups ($F(3, 349) = 4.25, p = .006$). Tukey's post hoc comparisons revealed that the Caucasian group had significantly lower Interpersonal Scale scores relative to the Asian and the Mixed Ethnicity Groups. The Hawai'ian group did not significantly differ from the other three ethnic groups on the Interpersonal Scale.

In addition to the main SPQ scales, this study was interested in possible item-specific differences that might arise across cultures. It was hypothesized that the second item ("Have you ever had the sense that some person or force is around you, even though you cannot see anyone?") and the twelfth item ("Have you had experiences with astrology, seeing the future, UFOs, ESP or a sixth sense?") might be more common among Hawai'ians. Two (yes or no to the item) by four (ethnic group) chi squares did not significantly differentiate ethnic groups based on rate of endorsement to these items (Item 2: $\chi^2(3, N=353) = 5.38, p = NS$; Item 12: $\chi^2(3, N=352) = 2.26, p = NS$).

Discussion

Results suggest that SPD traits are approximately equivalent across ethnic groups. None of the ethnic groups represented in this sample significantly differed in their endorsement of total SPQ scores, the Cognitive/Perceptual Scale, or the Disorganized Scale. Given possible traditional cultural influences, this study was particularly interested in the rates of SPD symptoms among Hawai'ians. These findings suggest that despite possibly related traditional cultural beliefs, young people identifying with Hawai'ian ethnicity do not show elevated Cognitive/Perceptual Distortions scores significantly more than other ethnic groups in this sample. Examination of the total SPQ score, and the theoretically relevant individual questions on the SPQ, revealed the same pattern of findings.

Numerous factors may account for these null findings among Hawai'ians. It is possible that although a part of traditional Hawai'ian culture, modern Hawai'ian culture is no more characterized by the supernatural than the cultures of other ethnic groups living in Hawai'i. Alternatively, it may be that the SPQ measure of schizotypy is valid for schizotypy, and that schizotypy is not elevated among Hawai'ians. Rather, Hawai'ians may identify with specific supernatural phenomenon not captured in the SPQ-B, such as ghosts or voices

This study reports rates of schizotypal traits in an ethnically and culturally diverse non-clinical population in the state of Hawai'i

from deceased relatives. Item 2, however, does appear to have good face validity regarding the supernatural described in traditional Hawai'ian culture ("Have you ever had the sense that some person or force is around you, even though you cannot see anyone?"), and this item did not distinguish ethnic groups.

For Hawai'ians, it is possible that the blending of cultures associated with mixed ethnicities may account for less adherence to traditional Hawai'ian beliefs in the supernatural. Only 12% of the participants in the Hawai'ian group identified as solely Hawai'ian. The majority of subjects in the Hawai'ian group identified as mixed ethnicity, and therefore are likely to have mixed cultural backgrounds. It is important to note that this project did not include a measure of acculturation. Acculturation effects may play a role in non-significant differences across all ethnic groups. Although different ethnic groups were identified, many of the members of these groups are young adults and grew up in the multi-cultural community of Hawai'i. It is likely that the dominant cultures of the community permeate to all members. Perhaps level of acculturation plays a moderating role in a relation between Hawai'ian ethnicity and belief in the supernatural, with those identifying as highly culturally Hawai'ian possibly endorsing more items suggestive of belief in the supernatural.

It is interesting to note that all ethnic groups in this study endorsed some symptoms of SPD with variation within the groups. This pattern suggests that schizotypal traits do exist in this sample and are distributed on a continuum. Despite the existence of SPD symptoms in this sample, exploratory analyses revealed that individuals in this sample showed a trend towards reporting less SPD symptoms relative to a mainland sample of college students from a previously published project

Analyses from this sample did detect significant differences between the Caucasian group and the Asian group, as well as between the Caucasian group and the Mixed Ethnicity group, on the Interpersonal Scale. This finding is consistent with previous research on the social functioning of Asians relative to Caucasians, and suggests that Caucasians from this sample may be more affectively expressive and sociable relative to the Asian and Mixed Ethnicity group. It is interesting to note that the majority of the Mixed Ethnicity group identified as part Asian.

Overall, the current study suggests that rates of SPD symptoms are similar across ethnic groups in this sample. This study did not support the hypothesis that Hawai'ians are more likely to endorse items related to the supernatural as identified by the Cognitive/Perceptual Scale from the SPD.

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