

COMPLIMENTARY/ALTERNATIVE MEDICINE AND PERCEIVED STRESS IN PEOPLE LIVING WITH HIV/AIDS

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The relatively recent success of highly active anti-retroviral therapy (HAART) has extended life expectancy for those living with HIV/AIDS. However as long term survival increases, there is also the potential for increased symptoms and negative side effects from these life-extending medications. It has been reported that many HIV+ persons seek to replace and or augment their traditional medication with a variety of complementary and alternative medicines (CAM). Although it has been reported that as many as two-thirds of those who are HIV+ use or have used CAM in the course of their illness, little is known about the psychosocial differences between CAM and non CAM users and what impact these differences might have on their overall health. If group differences between CAM users and non CAM users do exist then exploring these differences provides the opportunity to gain a broader understanding about HIV+ individuals.

This study examined the difference between affirmed CAM users and non CAM users on several biopsychosocial factors. For the purposes of this study CAM was defined as vitamin supplements, mineral supplements, miscellaneous herbs and botanicals, modified diet and a variety of mind and body therapies including acupuncture, massage, meditation and prayer. The differences between total symptoms, reported dispositional optimism, pessimism and perceived stress were examined. In addition to exploring the differences in CAM users vs non CAM users, correlates of stress were analyzed and a model was constructed to explain some of the biopsychosocial factors that contribute to variance in perceived stress.

Participants (n=80, 50% women), self-identified as African-American (58.8%), European-American (36.3%), Latino(a) (5.0%), were recruited in the Dallas/Fort Worth area from community based organizations that serve people living with HIV/AIDS. The average age of the sample was 42.6 (SD=0.5) with 12.9 years of education (SD=10.2). Seventy-five percent of the sample reported annual incomes of less than \$10,000. Participants reported knowing of their seropositive status an average of 8.8 years (SD=5.6). For those who reported knowing their CD4 t-cell count (75%), the average count was 369 (SD=206.6). There was no significant difference between CAM and non CAM users regarding their use of HAART ($t = .72, p=0.48$) with 68.8% reporting current use.

All data was collected at one point in time. The study used a cross-sectional correlational design. Along with demographic questions, participants completed an inventory of CAM usage, a history of symptoms experienced, a measure of dispositional optimism and pessimism (Extended Life Orientation Test) and a measure of perceived stress (Perceived Stress Scale). All measures were self-report. T-tests were performed comparing CAM users with non CAM users. CAM

users reported a significantly higher number of symptoms ($M=9.8$, $SD=5.2$) than non-CAM users ($M=7.2$, $SD=5.9$) ($t=2.15$, $p<.05$). CAM users also reported significantly higher levels of dispositional optimism ($M=24.6$, $SD=3.6$) than non-CAM users ($M=21.3$, $SD=4.7$) ($t=3.46$, $p<.01$) and significantly lower levels of pessimism ($M=20.9$, $SD=9.4$) than their non-user counterparts ($M=25.6$, $SD=8.5$) ($t=2.34$, $p<.05$). In addition, reported levels of perceived stress indicate that CAM users experience significantly less perceived stress ($M=15.3$, $SD=7.6$) than non-CAM users ($M=19.9$, $SD=5.4$) ($t=3.17$, $p<.01$).

A correlational matrix was analyzed to determine any significant relationships between the variables that were identified as significantly different between users and non-users. Perceived stress was found to be significantly negatively related to CAM usage ($r=-.34$, $p<.01$), optimism ($r=-.50$, $p<.001$) and significantly positively correlated to pessimism ($r=.34$, $p<.01$). This suggests that CAM usage, dispositional optimism and pessimism may play a role in the variance of perceived stress in HIV+ adults. Given these associations, an exploratory hierarchical multiple regression analysis was conducted to evaluate this association. After controlling for sex and ethnicity, the model accounted for a significant amount of stress variance [Adjusted R Square = .32, $F(7, 72) = 6.30$, $p<.001$] with CAM usage ($t=2.0$, $p=.05$) and optimism ($t=3.0$, $p<.01$) significantly associated with decreased stress. Whereas, increased number of symptoms ($t=2.2$, $p<.05$) and pessimism ($t=2.0$, $p<.05$) were associated with higher levels of stress.

This study suggests a significant difference between individuals who choose to use CAM and those who do not on several important psychosocial factors, namely dispositional optimism, pessimism and perceived stress. It also proposes that CAM use, number of symptoms, dispositional optimism and pessimism are factors that together can predict a significant amount of the variance in perceived stress.

Overwhelming empirical evidence suggests that stress has a negative impact on the immune system, therefore understanding the contributing factors to perceived stress in HIV+ adults is an essential component to alleviating undue burden on the immune system. Although there is some debate about the overall, long term impact of dispositional optimism in people with chronic illness, this study suggests that those who report increased optimism also report decreased perceived stress. Regardless of its long-term impact, it is possible that increased optimism may play an important role in the short term in the lives of those adults with HIV/AIDS. These findings also support other research that pessimism is a separate construct that might also have an impact on stress and thereby immune function.

Of particular interest from these findings is the paradox that although CAM users reported an increased number of symptoms, and an increased number of symptoms was associated with higher stress levels, overall CAM users reported

less perceived stress. Further research should be conducted to determine which factors associated with CAM usage might be mitigating this decrease in perceived stress regardless of the reported number of symptoms.