The present study tested the interplay of positive affect, and social connectedness in predicting health of Japanese using a national probability sample. Measures of health included HDL (high-density lipid), and DHEAS (Dehydroepiandrosterone-sulfate). The results showed that positive affect interacted with social connectedness to predict HDL and DHEAS, such that for those with low social connectedness, greater positive affect was related to lower HDL and DHEAS levels.

### Results

**Abstract**

The present study tested the interplay of positive affect, and social connectedness in predicting health of Japanese using a national probability sample. Measures of health included HDL (high-density lipid), and DHEAS (Dehydroepiandrosterone-sulfate). The results showed that positive affect interacted with social connectedness to predict HDL and DHEAS, such that for those with low social connectedness, greater positive affect was related to lower HDL and DHEAS levels.

**Introduction**

Previous studies have shown that positive affect has numerous health benefits in Western Cultures (Pressman & Cohen, 2005; Steptoe, Wardle, & Marmot, 2005). However, cross-cultural studies offer a more nuanced perspective following from the idea that positive affect varies with cultural scripts and norms (Kiiyama, Markus, & Kurokawa, 2000). As such, it is unclear whether the positive affect is equally beneficial for health across different cultural contexts. Particularly, in East Asian culture where relationship-maintaining aspects of emotions are highlighted, positive affect experienced in isolation from social relationships may not be beneficial or even harmful for one’s health. (Miyamoto, Uchida, & Ellsworth, 2010; Uchida & Kilayama, 2009). The present study tested whether social connectedness would work interactively with PA in predicting health outcomes in Japan. Health outcomes were assessed by self-rated health questionnaire and two biomarkers that represent healthy functioning of body: HDL and DHEAS. For people with high social connectedness, PA was expected to contribute to higher self-rated health scores as well as higher levels of HDL DHEAS, whereas these associations were predicted to be absent or the opposite for people with low social connectedness.

**Method**

**Participants**

A national survey of well-being and health, the Midlife in Japan (MIDJA), was conducted in 2008 with participants randomly selected from the Tokyo metropolitan area. They completed a self-administered questionnaire. A subset of the sample was recruited to participate in biological data collection (N = 382; 168 males, 214 females; M = 54.24 years).

**Measures**

1. **Positive affect**
   - During the past 30 days, how much of the time did you feel ______? 6 items: cheerful, in good spirits, extremely happy, calm and peaceful, satisfied, and full of life.

2. **Social connectedness**
   - Agreeableness
     - 5 items: helpful, warm, caring, soft-hearted, and sympathetic
   - Support from friends
   - Positive relations with others
     - 7 items from a subscale of positive well-being measure (Ryff, 1989).
   - Interdependence
     - 10-item version of Singelis scale (Singelis, 1994).

3. **Dependent variables**
   - a. HDL
   - b. DHEAS

4. **Control variables**
   - age, gender, years of education, Body Mass Index, alcohol consumption, smoking, and negative affect.

**Results**

As predicted, there was a significant interaction between PA and social support from friends on HDL, b = .028, t(336) = 2.322, p < .02, and a marginally significant interaction between PA and positive relations with others on HDL, b = .026, t(336) = 1.659, p < .098. As simple effects tests were shown in Figure 1, increase in PA was negatively associated with HDL levels among people low on social support from friends, but not among people high on social support from friends (p = .421). For DHEAS, PA showed interaction effects with interdependence and agreeableness, b = .149, t(336) = 2.479, p < .014, and b = .131, t(336) = 2.347, p < .02 respectively. The pattern of the simple effects on DHEAS was in line with the simple effects on HDL, PA was significantly associated with DHEAS in a negative direction among people with low on social connectedness measures (Figure 2).

Focus on the cultural meanings of social connectedness and PA, the present study found that the PA and social connectedness interacted on the level of HDL and DHEAS. The increase in PA was negatively associated with healthy levels of HDL and DHEAS for Japanese people of whom high PA potentially conflicts with their culturally sanctioned task, maintaining social harmony. This has substantial implications to people’s health in other cultures that have different norms from the U.S where maintaining positive feelings is a predominant cultural task.

**References**


