Life satisfaction and its correlates among college students in China: A test of social reference theory

Jie Zhang [a,b,*], Sibo Zhao [c], David Lester [d], Chengchao Zhou [a]

[a] Shandong University, School of Public Health, China
[b] State University of New York College at Buffalo, NY, USA
[c] State University of New York at Buffalo, NY, USA
[d] The Richard Stockton College of New Jersey, NJ, USA

A B S T R A C T

Introduction: To study life satisfaction and to test the role of social reference in determining the degree of life satisfaction, we examined a large sample of undergraduate students in China for the correlates of campus life satisfaction.
Methods: A questionnaire survey was administered at a university and the final sample consisted of 439 respondents aged between 17 and 24 years, from all over the country, and studying different subjects.
Results: It was found that freshman students tended to score higher on their life satisfaction than students in other grades and the college students' life satisfaction was positively related to female gender, self-esteem, social support, and the liberal attitudes on female gender roles, but negatively correlated with depression and suicidal ideation.
Conclusions: Contrary to common beliefs, students from an urban area or from better-off families were not necessarily more satisfied with current life than those students coming from the countryside or low income families. The findings were accounted for by the social reference theory and in this case college students' campus life satisfaction is basically affected by their pre-college life quality as a reference.

© 2013 Elsevier B.V. All rights reserved.

1. Introduction

Life satisfaction, or the self-perceived well-being, of college students has become an important issue for school administrators (Diener and Larsen, 1993). Improving the life satisfaction of college students should help reduce the risks of physical injury and mental disorder among college students (Valois et al., 2004, 2006). Research on this issue involves not only the assessment of the levels of life satisfaction and comparison between different demographic groups, but also identifying important correlates of life satisfaction or self-perceived well-being (Campbell, 1981; Veenhoven, 1991). Correlational studies on variables such as self-esteem, social support, family social economic status (SES), and depression, might be helpful for school administrators in their making policies to improve that quality of campus life for students.

Social reference theory postulates that an individual's perception of an external social fact or a self-evaluation is based primarily on the reference that the individual consciously or unconsciously

chooses to use (Zhang, 2012; Zhang et al., 2010), and so life satisfaction, as a measure of self-perceived well-being, might also be a function of social reference.

In daily life, we are mostly unaware of our own referential decisions, especially of the cultural influence of what we use as a reference. Sherif et al. (1958) found that, when subjects first lifted a heavy weight, they underestimated the weight of lighter weights they were subsequently asked to lift. It seems that knowledge and feelings require a reference, and the reference is often the starting point initial position (Sherif et al., 1958).

Choosing a reference can be conscious. Researchers often carry out comparative studies, in both natural and social sciences. In cross-sectional studies, we typically set up one group as the reference and compare others groups with respect to this reference. In cross-cultural investigations, we typically have one culture as the standard or the yardstick (no matter whether this is appropriate or not) and compare other cultures with it. Statistically, one of the traits of a variable is set up as 1 (reference) in an odds ratio analysis and all other traits in the variable are compared to it. As scientists, we know that we need something fixed for the discussion; without a reference, we do not know where to start.

Subjective happiness is determined by the comparative reference a person chooses. This choice may help us understand the Easterlin Paradox: Happiness is reported to be as high in poor

* Corresponding author at: Department of Sociology, State University of New York College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222, USA. Tel.: +1 716 878 6425; fax: +1 716 878 4009.
E-mail address: zhangj@buffalostate.edu (J. Zhang).

countries as it is in rich countries. It is commonly believed that happiness is increased with raised income, but Easterlin et al. (2010) studies concluded that this is not always true. For most people, happiness can be increased with a continuing increase of income, but only up to a certain point. After that point, the positive correlation between happiness and income becomes nonsignificant (Easterlin, 1974; Easterlin et al., 2010). People in either high or low income groups can be equally happy or sad. Other investigations on happiness (in the sense of life-satisfaction) claim support for this social reference theory. Happiness is no less among paralyzed accident victims than it is among lottery winners (Brickman et al., 1978), and it is unrelated to stable living conditions (Inglehart et al., 1987).

Relative wealth (rather than absolute wealth) can be a source of happiness or life satisfaction. In Maslow's hierarchy of needs, a pyramid depicting the five levels of human needs, when a person ascends the steps to the top of the pyramid, he reaches self-actualization (Maslow, 1954). At each of the four levels of needs beneath self-actualization (physiological needs, safety needs, love and belonging needs, and esteem needs), life satisfaction is largely determined in the context of that level. People at different levels can be equally happy and satisfied if they feel that they are better off than others at the same hierarchical level. It may have nothing to do with the absolute amount of need satisfaction. The amount of need satisfaction is subjective, varying from people to people based on their subjectively chosen reference.

Previous studies on life satisfaction have found that life satisfaction is positively related to higher self-esteem (Diener and Diener, 2009), stronger social support (Campbell, 1981), and better living conditions (Veenhoven, 1991), and negatively correlated with non-traditional gender attitudes (Lye and Biblarz, 1993), depression (Park, 2003) and suicidal ideation (Valois et al., 2004). Therefore, in the present study, we generally use family SES and hometown residence as important predictors of pre-college life quality. Students would have a sense of life-satisfaction based on their living conditions before they entered college, which will become the reference that the individuals consciously or unconsciously choose to compare with the current circumstances. Regarding to the assessment of life satisfaction and the identification of correlates of this life satisfaction, it was hypothesized that self-esteem and social support are positively related to life satisfaction while depression and suicidal ideation are inversely related to life satisfaction. It was further hypothesized that those coming from good living conditions do not necessarily rate their life satisfaction higher than those coming from poor living conditions.

2. Method

A self-administered questionnaire was conducted at Shandong University in the Fall semester of 2011. Shandong University is located in Jinan, the capital city of Shandong Province which is on the east coast of China between Beijing and Shanghai. Shandong University, with a student population of about 50,000, is one of the key universities in China. The students at Shandong University come from all over China, with about 50% of them from Shandong Province.

The questionnaire was approved by the Institutional Research Board (IRB) at Shandong University as well as at the American university with which the lead author of the paper is affiliated. Informed consent was obtained before each student answered the questionnaire, and all the respondents were informed of their right to refuse and stop the procedure any time they like.

Respondents were selected systematically on campus. First, colleges were randomly selected and then classes in the selected colleges were systematically sampled. For the classes selected, we

approached the instructors to obtain their agreement and schedule a time for administering the questionnaire, after discussing with them the purpose and significance of the study. Students in the selected classes answered the questionnaire in groups. The questionnaire had 119 items, and responses were entered on a scantron answer sheet. It took about 20–30 min to finish the questionnaire.

The dependent variable of the study was life satisfaction. Respondents were asked: "How satisfied are you with your current life?" and there were four options: (1) very unsatisfied, (2) unsatisfied, (3) satisfied, and (4) very satisfied. The social psychological scales used for the correlates of life satisfaction were Rosenberg's self-esteem scale (Rosenberg, 1965), the CES-D measure of depression (Radloff, 1977), the MSPSS measure of social support (Zimet et al., 1988), and the SSI measure of suicidal ideation (Beck et al., 1979). All these scales have been validated in the current Chinese language format with Chinese college student samples (Zhang and Norvilitis, 2002).

The Gender Equalitarianism measure of liberal gender role attitudes was taken from the General Social Survey (GSS) (Davis and Smith, 1972–1993). It consists of six statements rated on a scale of "1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree." One example of the statements is, "A working mother can establish just as warm and secure a relationship with her children as a mother who does not work." Another statement is, "It is more important for a wife to help her husband's career than to have one herself" (Davis and Smith, 1972–1993).

The latest version of SPSS (IBM SPSS Statistics 19) was employed for the data analyses. The bivariate analyses used the t tests, chi-square, and Pearson correlation coefficients. Multiple logistic regression was used to assess the model for predicting life satisfaction.

3. Results

A total of 439 students were recruited for this study. Female students ($n = 256$) accounted for about 58% of the sample and male students ($n = 174$) 40% with the rest having missing data. In particular, 158 males and 241 females have answered the life satisfaction question and the participation rate is over 90%. Age ranged from 17 to 24 years with the mean of 20.65 years of age. The respondents were not evenly distributed over all the school years with 55.8% of them in the junior year of school. Before they came to Shandong University, 55.4% of them lived in an urban area and 40.1% lived in a rural environment. The majority of the respondents (71.1%) said they were very satisfied with current life, 3.2% of them satisfied, 14.1% unsatisfied, and 3.6% very unsatisfied.

Table 1 illustrates the distribution (frequency or mean) of each of the expected correlates of life satisfaction between those college students who are very satisfied and those less satisfied. Females tended to be more satisfied than males. The difference of life satisfaction between students from different grades is statistically significant. Freshmen (93%) were more satisfied than students in other grades and sophomores (65.6%) are least satisfied among those students. As predicted in the literature, self-esteem and social support were positively related to life satisfaction, while depression and suicidal ideation were negatively related to life satisfaction. Contrary to findings in other populations (Lye and Biblarz, 1993), an egalitarian attitude toward gender role was not negatively associated with life satisfaction. Instead, the more egalitarian attitude a respondent held toward gender role, the higher the score on life satisfaction.

Bivariate analyses indicated that respondents who live in rural areas and who come from low family income families do not necessarily score lower on the college life satisfaction measure than those respondents who live in cities and come from high