

THE EFFECTS OF SHYNESS AND SOCIAL SUPPORT  
ON COLLECTIVISM AND DEPRESSION  
A THESIS  
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BY  
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**ABSTRACT**

**THESIS:** The effects of shyness and social support on collectivism and depression.

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Knowing some of the cultural tenets that may be related to depression can help inform counseling. Culture will be measured using collectivism, which is defined as being more orientated to others, rather than to oneself. It was hypothesized that shyness and social support would be related to both collectivism and depression. Shyness would be associated with an increase in collectivism and depression, while social support would be associated with an increase in collectivism and a decrease in depression. Social support however, would be more strongly related to depression than shyness. It was found that more social support was indeed significantly related to lower depression, and higher levels of collectivism. Shyness was significantly related to higher levels of depression but it was also related to a lower collectivistic level, though not significantly. An interaction was found between shyness and social support on the outcome of depression, which means that the higher the social support, the less impact shyness has on depression. Further studies should focus on research that more clearly defines a relationship between depression and collectivism using shyness and social support as predictors.

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## Chapter 1: Introduction

Depression can affect persons from a variety of backgrounds. Knowing some of the potential characteristics that are related to depression may help focus prevention strategies and identify potential risk factors. Because we live in a multicultural society, it may also be helpful to determine if certain cultural orientations are related to depression. Culturally informed treatments and preventions should be more effective than less informed, more generalized ones (Price, 2008).

Joiner (1997) observed that shyness and a lack of social support were positively related to depression. He suggested that there are many additional variables that may also affect depression. In this study, I will examine the influence of three of these variables on depression: culture, shyness, and social support. The cultural variable that I will use for this study is “collectivism”. Collectivism is defined as being more oriented to social interdependence, cooperation, and social norms of the in-group, rather than to one’s own personal preferences, thoughts, and feelings (Hui, 1988). According to Hui and Yee (1994), up to one-third of all cross-cultural studies use the cultural orientation of individualism versus collectivism to explain the differences between cultures. In addition to varying between cultures, persons manifest these constructs to different degrees within cultures. This study will capitalize on this variability and will use a within culture (i.e., within nation) design. Further information regarding the within nation design will be

explored in chapter 3.

The aim of the current study is to examine how shyness and social support are related to collectivism and depression. The relationship of shyness and social support with collectivism was first measured, followed by the relationship of shyness and social support with depression. The influence of demographic characteristics for both of these relationships was also taken into consideration. Furthermore, an interaction between shyness and social support was also developed and used as an additional predictor for both of these relationships.

## Chapter 2: Literature Review

### **Shyness, Social Support, and Collectivism**

Wang and Ratanasiripong (2010) found that individuals who had a more independent cultural orientation (less collectivism) tended to have less social difficulty and fewer depressive symptomatology than those with a more dependent cultural orientation (more collectivism). Shyness is more closely related to collectivistic values that emphasize constraint on personal behavior, rather than emphasizing self expression (Okazaki, 1997). According to Weisz et al. (1993), socialization practices that emphasize control over self, behavioral, and emotions may be related to the higher levels of shyness seen in Thai children and adolescents compared to children and adolescents in the United States (an overall more individualistic culture). Gudino, Lau, Yeh, McCabe, and Hough (2009) state that shyness may be less adaptive in individualistic cultures and more adaptive in collectivistic cultures because collectivistic cultures value interdependence with others and self-regulation, while individualistic cultures value autonomy and competition.

Having more of a collectivistic cultural orientation is associated with an increase in social support as well. According to Cohen and Hoberman (1983), persons in collectivistic cultures are more likely to receive social support than those in individualistic cultures. This may be due to the fact that in collectivistic cultures there is

an emphasis on social life that could lead to more and better quality of social support (Ebreo, 1998). Indeed, individualistic and collectivistic orientations are related to variables such as well being and relationships with others (Oyserman, Coon, & Kimmelmeier, 2002). Research by Triandis, Bontempo, Villareal, Asai, and Lucca (1988) found that individuals who were more allocentric (i.e., other centered, a trait of collectivism) reported having more and better quality of social support than individuals who were more idiocentric (i.e., self centered, a trait of individualism). Furthermore, they stated that individualistic cultures tend to focus on individual rights and the self rather than the group. Since groups provide social support, resources, and security, individualistic cultures may have less social support, resources and security. As a result, even within an otherwise individualistic culture, those individuals who have a more collectivistic orientation may have more connections and support which may lower the risk for depression (Triandis et al., 1988; Triandis, Leung, Villareal, & Clack, 1985). Supporting this idea are the results of Ebreo's research that found evidence of "social support mediat[ing] the relationship between...culture and psychological adjustment" (1998, p. 113).

Contrary to the finding by Okazaki (1997), a study by Jackson, Flaherty, and Kosuth (2000) found that the lower an individual's collectivism level, the shyer the person is. This may depend on the context or meaning of the measurement, for example, a person high in collectivism and shyness may not be shy in situations where he or she is with close family and friends, but in other situations he or she may exhibit shyness. This may occur because those with a more collectivistic cultural orientation have more established connections with others that may then lessen shyness. Therefore, even though

shyness is related to collectivism, this association may change depending on the level of social support that is received. Because social support is associated with a change in the relationship between shyness and collectivism, it is hypothesized that social support may have a stronger relationship with collectivism than shyness.

### **Shyness, Social Support, and Depression**

There has been previous research documenting a positive relationship between shyness and depression. Alfano, Joiner, and Perry (1994) found that shyness was often related to self reported depression as well as other dysfunctional cognitions. Traub (1983) also found that shyness positively correlated with depression, showing that those who are shy are more likely to be depressed. Because shyness and depression are associated, it is possible that these problems are related (Alden & Phillips, 1990). Nonetheless, most research done in this area considers additional mediating factors that may contribute to both shyness and depression. Social support is one of the variables that has been previously studied. Social support is related to shyness and depression, as well as collectivism. Due to this, the variable of social support was chosen to be assessed as well.

Shyness is defined as having a tendency to feel worried, tense or awkward during social interactions (Cheek & Watson, 1989). Shyness may be further exacerbated by concerns about negative social evaluation. These fears may then lead to a lack of social interaction, which then may produce negative affect and depression (Lundquist, 2009). Shyness and social support have both been independently linked to depression (Joiner, 1997). Little research has been done on the interaction of these variables on depression. Therefore, exploratory analysis will be conducted on this interaction in addition to the main hypothesis.

Sarason, Sarason, and Lindner (1983), as cited in Triandis, Leung, Villareal, and Clack (1985), found that low levels of social support were related to an increased vulnerability to mental illness. These findings match the results of a study done by Murberg (2009) that found the effects of shyness on depressive symptoms were reduced for adolescents who reported high levels of social support from peers. Research mentioned earlier by Joiner (1997) also found that shyness predicted depressive symptoms, but only for those persons also reporting low social support. Persons who were shy and had high social support were no more likely to have depressive symptoms than those who were not shy. This is an interesting finding because it may mean that social support is more of a factor in depression than shyness. Shyness may, therefore, predispose a person to having depression and then be triggered by an absence of social support. Those who are shy may have less access to social support because they are less able to cope with social interactions (Joiner 1997; Jones, Briggs, & Smith, 1986), which may indirectly lead to more depression. Also, it is possible that a restriction of social behavior (symptom of shyness, see Cheek & Watson, 1989) is a factor in depression when it is associated with having low social support (Joiner, 1997). Based on these findings, the current study hypothesizes that social support will be a stronger predictor of depression than shyness.

### **Hypotheses**

Hypothesis 1: Higher scores on shyness and social support will be associated with lower scores on the collectivism scale, which corresponds to higher levels of the collectivism concept.

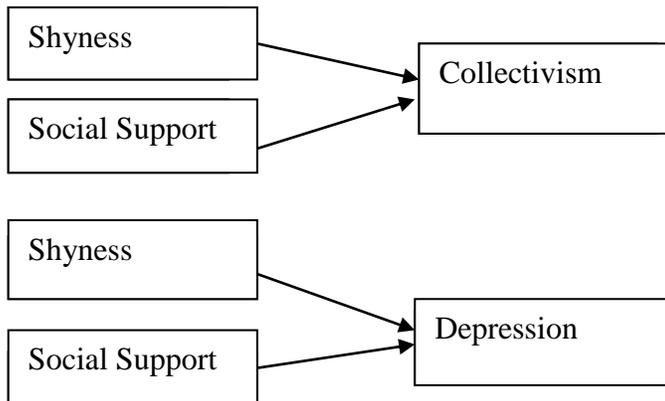
Hypothesis 2: Higher scores on shyness will be associated with higher scores on

depression.

Hypothesis 3: Higher scores on social support will be associated with lower scores on depression.

Hypothesis 4: Social support will show a stronger association with depression than shyness will exhibit with depression.

*Figure 1. Relationships between Variables*



## Chapter 3: Methods

### **Within Nation Sample**

A within nation sample looks at data within a culture or region, in this case the United States, as opposed to a cross- culture design, which looks at data between two cultures or regions (e.g., Japan and United States). According to Ebero (1998), there is a wide range of within-nation variability in collectivistic values; persons with both collectivistic and individualistic orientations are likely to be represented within a given culture or nation. Sinha and Tripathi (1994) stated that it is possible that “both individualistic and collectivistic orientations may coexist within individuals and cultures” (p. 123). Furthermore, Hui (1988) suggested that individuals in the Midwestern area of the United States are exposed to both individualist American values and collectivist, small-town Midwestern community values. Vandello and Cohen (1999) support this idea in their research on regional collectivism; they found that the Midwest area scored in the middle on a United States collectivism index developed and validated by the authors. Because the current study will be conducted in a medium size Midwestern community, it is anticipated that a normally distributed sample of collectivism, with a wide range of variability will be obtained.

### **Participants**

Participants were college students and local community members aged 18 and

over. Persons were recruited using multiple media outlets including: a local newspaper, online communities, local libraries, local grocery stores, and a local restaurant. In addition, Ball State University (BSU) students and staff were sent emails, and fliers were put up on campus at BSU and Ivy Tech Community College. Participants were given an opportunity to enter a drawing for a \$50 American Express gift card.

### **Measures**

Shyness was measured using the Revised Cheek and Buss Shyness Scale (Cheek & Buss, 1981; Cheek, 1983) (see Appendix A.). The questionnaire consists of 13 questions rated on a five point Likert-style scale, with "1" being very uncharacteristic/untrue/strongly disagree, "2" being uncharacteristic, "3" being neutral, "4" being characteristic, and "5" being very characteristic/true/strongly agree. Item scores are then summed (range from 13 to 65), with higher scores indicating higher levels of shyness. The Cheek and Buss Shyness Scale assesses shyness based on affective and behavioral aspects of shyness, but does not include aspects of sociability. Scores on this measure correlate highly with other measures of shyness (e.g., .79 with the Social Reticence Scale: Jones, Briggs & Smith, 1986). Test-retest reliability for Revised Cheek and Buss Shyness Scale is .88 and the internal consistency is .90.

Social support was measured using the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988) (see Appendix B.). The questionnaire consists of 12 questions rated on a seven point Likert-style scale, with "1" being very strongly disagree, "2" being strongly disagree, "3" being mildly disagree, "4" being neutral, "5" being mildly agree, "6" being strongly agree, and "7" being very strongly agree. The author recommends using an average to obtain a total score, however

this study used the sum of the scores in order to maximize variability. Scores range from 12 to 84, with a higher score indicating higher levels of perceived social support. The items are sub scored into groups that specify the source of the social support: family, friends, or significant other. For my purposes a total score, rather than sub scores, were used. According to Zimet et al. (1998), the reliability of the total scale is .88 using Cronbach's alpha and the test-retest reliability is .85.

Depression was measured using Zung's Self Rating Depression Scale (Zung, 1965) (see Appendix C.). The questionnaire consists of 20 questions rated on a four point Likert-style scale, with "1" being a little of the time, "2" being some of the time, "3" being a good part of the time, and "4" being most of the time. To determine the depression index (total score), the author recommends averaging the score. However, this study used the sum of the scores in order to maximize variability. The scores range from 20 to 80, with a higher score indicating more depressive features. It measures four areas of symptom categories: psychic-affective, physiological, psychomotor, and psychological. The severity of the depressive symptoms is based on the frequency of symptoms. Scores on this measure have correlated highly with other measures of depression such as the Beck Depression Inventory (Robinson, Shaver, & Wrightsman, 1991). The internal consistency was reported by Zung and Zung (1986) as being .92. No test- retest information has been reported.

Collectivism was measured using the Cultural Collectivism-Individualism Scale (Triandis et al., 1988) (see Appendix D.). The questionnaire consists of 29 questions rated on a five point Likert-style scale, with "1" being strongly disagree, and "5" being strongly agree; the second, third, and fourth points were not specifically defined. Item

scores were then summed (range from 29 to 145), with a higher score indicating lower levels of collectivism. This scale only measures collectivism on a continuum and does not give any information on individualism. Therefore, a lower score on collectivism cannot be translated as being a high score on individualism. The scale was developed using 63 items from the Individualism-Collectivism Scale (INDCOL) (Hui, 1988) and 95 theoretically constructed items developed by Hui and Triandis in 1986. A factor analysis was conducted to determine the 29 questions used in the present scale. This measure was chosen due to its use in other within-nation studies (e.g., Ebreo, 1998; Tata & Leong, 1994) and because it uses continuous rather than restrictive categorical data. The reliability of this scale was .74 using Cronbach's alpha (Ebreo, 1998). No test-retest information has been reported.

The demographic scale (see Appendix E.) was made for the current study and contains seven questions. The first question was open-ended and asked participants where they heard about the study and was used to determine which advertising methods worked best and to possibly determine how many participants were students versus community members. Due to the ambiguous answers to this question, the number of students versus community members could not be determined. For the second question, participants answered where they lived: rural, urban, or suburban. It was thought that there might be a difference on the measure of collectivism depending on what type of area they lived in. This variable was not used due to concerns about adding too many predictor variables to the regression model. Furthermore, a correlational analysis done with this variable and both the outcome variables was not significant. The third question asked participants what gender they identified with, the choices being: male, female, or other. The “other”

category was not used in the analysis due to an extremely low number of people who chose this answer. The fourth question asked participants what their date of birth was. This date was then converted into their current age. The question was asked in an open-ended manner in order to get the maximum possible variance. The fifth question asked participants how they classified themselves in terms of ethnicity and were given nine categories to choose from, these categories were later collapsed into two (Caucasian or White and non Caucasian or White) because of the small response rate for many of the categories. This variable was not used in the regression analysis due to concerns about adding too many predictor variables to the regression model. A correlational analysis was done with this variable and neither outcome variables were significant. Therefore, it was only used in describing the participant sample. The sixth question was an open-ended question that asked participants how many years of education they completed. This question was not used in the study because of the ambiguous answers given, which made it impossible to quantify an accurate number for all the participants. The seventh question asked participants if they were religious or spiritual with the answers being: yes, no, or unsure. This variable was not used in the study due to concerns about adding too many predictor variables to the regression model. Furthermore, a correlational analysis done with this variable and both the outcome variables was not significant. Refer to Table 1 for the correlations regarding these questions with the outcome variables.

### **Procedures**

Participants were directed to the surveys hosted on SurveyMonkey (<http://www.surveymonkey.com>) via a URL link. The survey began with an informed consent page in which participants stated that they understood and accepted the

requirements for participating in the study. The demographic questionnaire was then given followed by the Revised Cheek and Buss Shyness Scale, the Multidimensional Scale of Perceived Social Support, the Zung's Self Rating Depression Scale, and then the Cultural Collectivism-Individualism Scale. After this information was collected, participants were thanked for their participation and given the option to enter their name and address in order to enter the drawing for the \$50 American Express gift card.

## Chapter 4: Results

This study used two hierarchical multiple regressions to analyze the results. The first hierarchical multiple regression analysis was conducted to examine the relationship of shyness and social support, on collectivism. The independent variables were: demographic information (gender and age), shyness, social support, and the interaction of shyness and social support. The dependent variable was collectivism.

The second hierarchical multiple regression analysis was conducted to examine the relationship of shyness and social support, on depression. As with the first regression analysis, the independent variables were: gender, age, shyness, social support, and the interaction of shyness and social support. The dependent variable was depression.

### **Participant Sample**

Data was gathered from 999 participants by using the multiple media outlets that were described in the previous chapter. Seventy three percent were female and 27% were male. The age ranged from 18 to 76, with an average of 25.6 years. Eighty nine percent of the sample were Caucasian or White and 11% percent were non Caucasian or White.

### **First-Order Correlations**

Correlations were calculated to determine whether the predictors had a significant relationship to the outcome variables and to gain insight about possible multicollinearity issues. These can be seen in Table 1. There were significant correlations between the

Table 1

*Correlations*

Measure	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Depression		.214**	-.320**	.379**	.078*	-.091*	-.054	-.025	.029
2. Collectivism			-.192**	.097**	-.059	-.054	-.014	-.034	.063
3. Social Support				-.225**	.526**	-.079*	.017	.005	-.012
4. Shyness					.689**	-.011	.009	.014	-.066*
5. Gender						.087**	.112**	-.095**	.034
6. Age							-.009	.020	-.079*
7. Area Live								-.066*	.097**
8. Rel/Spirt									.048
9. Ethnicity									

\*  $p < .05$ . \*\*  $p < .001$ 

\*Gender is coded "0" for females and "1" for males

outcome of depression and the following predictors: social support, shyness, the interaction of shyness and social support, gender, and age. Significant correlations were found between the outcome of collectivism and the following predictors: social support, shyness, and gender. The interaction of shyness and social support and age were not significantly correlated with collectivism. There was also a significant correlation between depression and collectivism,  $r = .214, p < .001$ . This is interesting because, although it is a weak correlation, it was not anticipated that these two variables would be related to each other.

### **Regression: Depression as Outcome**

A hierarchical multiple regression was done with demographic variables (gender and age) entered as the first block followed by social support as the second, shyness as the third, and the interaction of shyness and social support entered as the fourth. Gender and age were entered together as the first block in order to statistically eliminate their influence. Social support was entered as the second block because the literature suggests that it may be more important than shyness which was entered on the third block. The interaction of shyness and social support was then entered as the fourth block because it was not part of the original model but was included due to the lack of studies have that looked at this interaction in the past. In order to prevent issues of multicollinearity arising from the use of the interaction term, items were all mean centered (except gender because it was a dichotomous variable) by subtracting the mean from the total scores. Details of this analysis can be seen in Table 2.

All assumptions for this regression analysis were checked by looking at the residuals plot. The residuals plot showed normally distributed errors, linearity, no issues

Table 2

*Regression Outcome of Depression*

Predictor	Depression		
	$\Delta R^2$	$\beta$	$\Delta F$
Step 1	.017		6.325*
Age		-.095*	
Gender		-.082*	
Step 2	.114		96.013**
Age		-.115**	
Gender		-.102*	
Social Support		-.339**	
Step 3	.100		94.801**
Age		-.106**	
Gender		-.091*	
Social Support		-.263**	
Shyness		.325**	
Step 4	.009		9.049*
Age		-.111**	
Gender		-.097*	
Social Support		-.259**	
Shyness		.334**	
S X SS		-.098*	
Total R <sup>2</sup>	.240		
Total F			46.135**
N	735		

\*  $p < .05$ . \*\*  $p < .001$ 

\*Gender is coded "0" for females and "1" for males

with homoscedasticity, and no violations of independence, with the Durbin-Watson equaling 1.986. Regarding issues of multicollinearity, there did not appear to be any problems as evidenced from the correlations between predictors and tolerance values.

The overall model for the final block with all of the items was significant,  $F(1, 735) = 46.135, p < .001$ . For this model,  $R^2 = .24$  indicating that 24% of the variance in depression was accounted for by the predictors. The inclusion of each set of predictors significantly increased the amount of variance explained. All of the individual predictors significantly predicted the outcome of depression. The beta coefficients showed that social support,  $\beta = -.259, p < .001$  and shyness,  $\beta = .334, p < .001$  were the strongest predictors of depression. This is then followed by age,  $\beta = .111, p < .001$ , the interaction of shyness and social support,  $\beta = -.098, p < .05$ , and gender  $\beta = -.097, p < .05$ . Based on these coefficients it was determined that social support was negatively related to depression. Thus, as social support increases, depression decreases. Shyness was positively related to depression indicating that with greater shyness, there is more depression. There was a negative relationship with age, indicating that older persons had lower depression scores than younger respondents. Gender was negatively related to depression, which due to the coding used, meant that females have higher levels of depression. The interaction term for shyness and social support showed a significant relationship with depression,  $\beta = -.098$ ; this means that the higher the social support, the less effect shyness has on depression.

### **Regression: Collectivism as Outcome**

A hierarchical multiple regression was done with demographic variables (gender and age) entered as the first block followed by social support as the second, shyness as

the third, and the interaction of shyness and social support entered as the fourth. Gender and age were entered together as the first block in order to statistically eliminate their influence. Social support was entered as the second block because the literature suggests that it may be more important than shyness which was entered on the third block. The interaction of shyness and social support was then entered as the fourth block because it was not part of the original model but was included due to the lack of studies have that looked at this interaction in the past. In order to prevent issues of multicollinearity arising from the use of the interaction term, items were all mean centered (except gender because it was a dichotomous variable) by subtracting the mean from the total scores. Details of this analysis can be seen in Table 3.

All assumptions for this regression analysis were checked by looking at the residuals plot. The residuals plot showed normally distributed errors, linearity, no issues with homoscedasticity, and no violations of independence, with the Durbin-Watson equaling 1.915. Regarding issues of multicollinearity, there did not appear to be any problems as evidenced from the correlation predictors and tolerance values.

The overall model for the final block with all of the items entered was significant,  $F(1,726) = 11.544, p < .001$ . For this model,  $R^2 = .074$  indicating that 7.4% of the variance in collectivism was accounted for by the predictors. Only the first (age and gender) block and second (social support) block were significant at  $p < .001$ . The third (shyness) and fourth (interaction of shyness and social support) blocks were not significant,  $p = .076$  and  $p = .058$ , respectively. For the second block, the individual predictors that significantly predicted the outcome of collectivism were social support,  $\beta = -.177, p < .001$ , gender,  $\beta = .162, p < .001$ , and age,  $\beta = -.084, p < .05$ . The beta

Table 3

*Regression Outcome of Collectivism*

Predictor	Collectivism		
	$\Delta R^2$	$\beta$	$\Delta F$
Step 1	.034		12.792**
Age		-.074*	
Gender		.173**	
Step 2	.031		24.209**
Age		-.084*	
Gender		.162**	
Social Support		-.177**	
Step 3	.004		3.166
Age		-.081*	
Gender		.164**	
Social Support		-.162**	
Shyness		.066	
Step 4	.005		3.597
Age		-.082*	
Gender		.159**	
Social Support		-.161**	
Shyness		.074*	
S X SS		-.069	
Total R <sup>2</sup>	.074		
Total F			11.544**
N	726		

\*  $p < .05$ . \*\*  $p < .001$ 

\*Gender is coded "0" for females and "1" for males

coefficients showed that social support and gender were the strongest predictors of collectivism, followed by age. It was found that social support was negatively related to collectivism; as social support increased, so did the level of collectivism (a lower score on the collectivism scale means a higher rate of collectivism). There was a negative relationship with age; older persons were more collectivistic than younger respondents. Gender was positively related to collectivism, which due to the coding used meant that females had higher levels of collectivism.

## Chapter 5: Discussion

The ramifications of this study will help inform the treatment and prevention of depression. One of the most important findings was that, higher levels of social support acted as a buffer against depression. Thus, it may be helpful to encourage the development of social support for those who may be at risk for depression. It may likewise be useful to identify those with low social support in order that help is provided should they develop depression. Higher levels of collectivism were also related to lower depression levels but this may be due to the influence of social support. Social support itself had moderate correlations with both depression and collectivism. Therefore, those who are more collectivistic may not need the same focus on depression prevention as those who are less collectivistic.

Shyness was also related to depression. This may be because shy people may have less access to social support than social people (Joiner 1997; Jones, Briggs, & Smith, 1986). This idea makes sense because it was found that social support reduced the effect that shyness had on depression. Therefore, it may be helpful for people who are at risk for depression and are shy to receive more social support. This may be done by encouraging group or family counseling so they may receive additional support.

### **Within Nation Sampling**

Sample data for collectivism were normally distributed with a representative

range of variance. Therefore, there was variance in collectivism even within the United States. This supports Ebero's (1998) research that found that there is within nation variability in collectivism. It also concurs with Hui's (1988) research that indicated the Midwest would have values ranging between individualist American values and collectivist, small-town midwestern community values.

### **Shyness and Social Support: Effects on Depression and Collectivism**

It was found that lower levels of depression were associated with being more collectivistic. This is the opposite of the finding reported by Wang and Ratanasiripong (2010) that individuals who were less collectivistic tended to have less social difficulty and lower depressive symptoms compared to those who were more collectivistic. The results of the current study may be more similar to those of Triandis, Bontempo, Villareal, Asai, and Lucca (1988) and Triandis et al., (1985), who found that those individuals who have a more collectivistic orientation have more connections and support, which may lower their risk for depression. This is also supported by the finding that social support was positively related to collectivism and negatively related to depression.

### **Shyness and Social Support: Effects on Depression**

More social support and less shyness were related to lower scores on depression, supporting Joiner's (1997) research where shyness and social support were linked to depression. Therefore, the results of the current study support the second hypothesis that higher scores on shyness will be associated with higher scores on depression, as well as the third hypothesis where higher scores on social support will be associated with lower scores on depression. The positive relationship of shyness and depression concurs with

research by Alfano, Joiner, and Perry (1994) and Traud (1983), who found that those who are shy are more likely to be depressed. Lundquist's (2009) research provides a sequential explanation for this pattern. Fears about negative social evaluation increase shyness and withdrawal from social interaction. The resulting isolation and absence of interaction partners may be interpreted as rejection, which, in turn, produces negative affect and depression.

Social support was a stronger predictor of depression than shyness; this supports the fourth hypothesis. It was also found that social support has a buffer effect on the positive relationship between shyness and depression. This impact of social support on shyness when predicting depression is similar to what Joiner (1997) found about shyness predicting depressive symptoms for those also reporting low social support. It is possible that shyness may predispose a person to having depression, but it is triggered only when they have low social support. This idea is supported by Joiner's (1997) and Jones, Briggs, and Smith's (1986) research that suggests that those who are shy may have less access to social support because they are less able to cope with social interactions, which can lead to higher levels of depression. Another possibility is that social support sufficiently bolsters emotional well-being so that shyness no longer is related to depression (Murberg, 2009).

### **Shyness and Social Support: Effects on Collectivism**

Higher levels of social support and lower levels of shyness were related to higher levels of collectivism. These results parallel those reported by Cohen and Hoberman (1983), that persons in collectivistic cultures are more likely to receive social support than those in individualistic cultures. The first hypothesis, that higher scores on shyness

and social support will be associated with higher levels of collectivism, must be rejected because only a higher level of social support was associated with higher collectivism. Higher levels of shyness were associated with lower collectivism, which was the opposite of what was hypothesized. In other words, those who are shyer tend to be less collectivistic. The association of higher levels of shyness and less collectivism is the opposite of Okazaki's (1997) research stating that shyness would be more closely related to collectivistic values because it emphasizes constraint on personal behavior. Instead these results similar are to those obtained by Jackson, Flaherty, and Kosuth (2000), which found that the lower an individual's collectivism level, the shyer the person is. It may be that those with a more collectivistic cultural orientation may have more established connections with others, which may then lessen shyness. This idea is supported by the positive moderate relationship that social support had with collectivism. Perhaps a buffer against shyness may exist among socially supported collectivistic persons. This social support buffer may provide them with more opportunities to interact with others and develop closer relationships than is true for less collectivistic persons. Furthermore, it is also possible that because this study was done within the United States (which has a strong culture of emphasizing self expression), a person may have more collectivistic values and still be less shy.

### **Limitations**

There are several limitations of this study; one of these limitations pertains to the sample collected. Due to heavy recruiting on a college campus, many of the participants reflected the demographic characteristics associated with a largely residential undergraduate school. These include a low average age, predominantly female gender,

and Caucasian or White ethnicity. These demographic characteristics limit the generalizability of the current results. College campuses were heavily recruited due to convenience and a lack of research funds.

The overall  $R^2$  for the depression model was only .240 and only .074 for collectivism. Although the regression models of depression and collectivism are interesting, they only predict 24% and 7.4% of the outcomes for depression and collectivism, respectively. These predictive values are too small to meaningfully predict collectivism and depression from gender, age, social support, shyness, and the interaction of shyness and social support. This limits the usefulness of these overall models.

Because all of the data gathered were self-reported, the responses given may be biased, especially due to the somewhat personal nature of some the questions. It is possible that more personal questions were not answered or answered in a biased way, which may affect the entire scale.

Ambiguous responses to some of the demographic questions prevented them from being properly coded. Furthermore, some of the questions were not included in the analysis due to the number of predictors already in the regression model and low correlations between them and the outcome variables.

The current study was unable to show how collectivism and depression may be mediated by shyness and social support. Collectivism and depression were both treated as separate outcomes, using the same set of predictors for each.

### **Implications for Future Research**

Future research should focus on generalizing these results to a larger population by incorporating more community members rather than mainly students. Less recruiting

on college campuses and more recruiting in the community may help rectify this issue. Care should also be taken to obtain a random sample of participants rather than a convenience sample.

Using a Structural Equation Model (SEM) design may also be helpful to further link depression and collectivism using the significant predictors found in this study. This may help answer the question of how collectivism is related to depression via shyness and social support.

Other variables may be used in future studies along with the current ones to create a better model that has more predictive strength. Perhaps some of the demographic questions that were not used in the current model can be included in future models. It is suggested that coping mechanisms may be independently related to both collectivism and depression. It is possible that those who have limited coping skills may be more depressed and less collectivistic because they may become more easily depressed and are unable to form many close connections with others. Therefore, it would be beneficial to create a model using the predictors in the current study and include coping skills. Furthermore, coping skills may also have implications when applying the results of the study to counseling and clinical practice.

## References

- Alden, L. E., & Phillips, N. (1990). An interpersonal analysis of social anxiety and depression. *Cognitive Therapy and Research, 14*(5), 499-512.
- Alfano, M. S., Joiner, T. E., & Perry, M. (1994). Attributional style: A mediator of the shyness-depression relationship? *Journal of Research in Personality, 28*(3), 287-300
- Cheek, J. M. (1983). The revised Cheek and Buss Shyness Scale. Unpublished manuscript, Wellesley College.
- Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology, 41*(2), 330-339.
- Cheek, J. M., & Watson, A. K.. (1989). The definition of shyness: Psychological imperialism or construct validity? *Journal of Social Behavior & Personality, 4*(1), 85-95.
- Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology, 13*(2), 99-125.
- Ebreo, A. (1999). Subjective culture, perceived social support, and adaptive coping: A multi-ethnic study of the transition to college. *Dissertation Abstracts International, 59*.
- Gudiño, O. G., Lau, A. S., Yeh, M., McCabe, K. M., & Hough, R. L. (2009). Understanding racial/ethnic disparities in youth mental health services: Do disparities vary by problem type? *Journal of Emotional and Behavioral Disorders, 17*(1), 3-16.
- Hui, C. (1988). Measurement of individualism-collectivism. *Journal of Research in*

*Personality*, 22(1), 17-36.

Hui, C. H., Triandis, H. C. (1986). Individualism-collectivism: A study of cross-cultural researchers. *Journal of Cross-Cultural Psychology*, 17(2), 225-248.

Hui, C. H., Yee, C. (1994). The shortened Individualism-Collectivism Scale: Its relationship to demographic and work-related variables. *Journal of Research in Personality*, 28(4), 409-424.

Jackson, T., Flaherty, S. R., & Kosuth, R. (2000). Culture and self-presentation as predictors of shyness among Japanese and American female college students. *Perceptual and Motor Skills*, 90(2), 475-482.

Joiner, T. E. (1997). Shyness and Low Social Support as Interactive Diatheses, With Loneliness as Mediator: Testing an Interpersonal-Personality View of Vulnerability to Depressive Symptoms. *Journal of Abnormal Psychology*, 106(3), 386-394

Jones, W. H., Briggs, S. R., & Smith, T. G. (1986). Shyness: Conceptualization and measurement. *Journal of Personality and Social Psychology*, 51(3), 629-639.

Lundquist, J. J. (2010). Examining the moderating effects of individualism and collectivism on the relationship between self-efficacy beliefs and depression: A test of competing hypotheses in Northern Plains American Indian youth. *Dissertation Abstracts International*, 71.

Murberg, T. A. (2009). Shyness predicts depressive symptoms among adolescents: A prospective study. *School Psychology International*, 30(5), 507-519.

Okazaki, S. (1997). Sources of ethnic differences between Asian American and White American college students on measures of depression and social anxiety. *Journal*

*of Abnormal Psychology, 106(1), 52-60.*

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses.

*Psychological Bulletin, 128(1), 3-72.*

Price, M. (2008). Culture Matters. *Monitor on Psychology, 39(7), 52*

Robinson, J., Shaver, P., & Wrightsman, L. (Eds.). (1991). *Measures of personality and social psychological attitudes*. San Diego, CA US: Academic Press

Sinha, D., & Tripathi, R. C. (1994). Individualism in a collectivist culture: A case of coexistence of opposites. In Kim, U., Triandis, H., Kâğıtçıbaşı, Ç., Choi, S., & Yoon, G. (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 123-136). Thousand Oaks, CA US: Sage Publications

Tata, S., & Leong, F. L. (1994). Individualism-collectivism, social-network orientation, and acculturation as predictors of attitudes toward seeking professional psychological help among Chinese Americans. *Journal of Counseling Psychology, 41(3), 280-287.*

Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, N. (1988).

Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology, 54(2), 323-338.*

Triandis, H. C., Leung, K., Villareal, M. J., & Clack, F. L. (1985). Allocentric versus idiocentric tendencies: Convergent and discriminant validation. *Journal of Research in Personality, 19(4), 395-415.*

Traub, G. S. (1983). Correlations of shyness with depression, anxiety, and academic performance. *Psychological Reports, 52(3), 849-850.*

- Vandello, J. A., & Cohen, D. (1999). Patterns of individualism and collectivism across the United States. *Journal of Personality and Social Psychology, 77*(2), 279-292.
- Wang, C. D. C., & Ratanasiripong, P. (2010). Adult attachment, cultural orientation, and psychosocial functioning of Chinese American college students. *Cultural Diversity and Ethnic Minority Psychology, 16*(2), 101-109.
- Weisz, J. R., Suwanlert, S., Chaiyasit, W., Weiss, B., Achenbach, T., M., & Eastman, K. L. (1993). Behavioral and emotional problems among Thai and American adolescents: Parent reports for ages 12–16. *Journal of Abnormal Psychology, 102*(3), 395-403.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*(1), 30-41.
- Zung, W. W. (1965). A self-rating depression scale. *Archives of General Psychiatry, 12*(1), 63-70.
- Zung, W. W., Zung, E. M. (1986). Use of the Zung Self-rating Depression Scale in the elderly. *Clinical Gerontologist: The Journal of Aging and Mental Health, 5*(1-2), 137-148

## Appendix A

## Revised Shyness Scale

Directions: Please read each item carefully and decide to what extent it is characteristic of your feelings and behavior. Fill in the blank next to each item by choosing a number from the scale printed below.

- 1 = very uncharacteristic or untrue, strongly disagree
- 2 = uncharacteristic
- 3 = neutral
- 4 = characteristic
- 5 = very characteristic or true, strongly agree

1. \_\_\_\_ I feel tense when I'm with people I don't know well.
2. \_\_\_\_ I am socially somewhat awkward.
3. \_\_\_\_ I do not find it difficult to ask other people for information.
4. \_\_\_\_ I am often uncomfortable at parties and other social functions.
5. \_\_\_\_ When in a group of people, I have trouble thinking of the right things to talk about.
6. \_\_\_\_ It does not take me long to overcome my shyness in new situations.
7. \_\_\_\_ It is hard for me to act natural when I am meeting with new people.
8. \_\_\_\_ I feel nervous when speaking to someone in authority.
9. \_\_\_\_ I have no doubts about my social competence.
10. \_\_\_\_ I have trouble looking someone right in the eye.
11. \_\_\_\_ I feel inhibitive in social situations.
12. \_\_\_\_ I do not find it hard to talk to strangers.
13. \_\_\_\_ I am more shy with the members of the opposite sex.

*Note.* Measures of Personality and Social Psychology Attitudes by Robinson, Shaver, & Wrightsman (Eds.).

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## Appendix B

## Multidimensional Scale of Perceived Social Support

Directions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree

Circle the "2" if you Strongly Disagree

Circle the "3" if you Mildly Disagree

Circle the "4" if you are Neutral

Circle the "5" if you Mildly Agree

Circle the "6" if you Strongly Agree

Circle the "7" if you Very Strongly Agree

- |     |                                                                      |   |   |   |   |   |   |   |
|-----|----------------------------------------------------------------------|---|---|---|---|---|---|---|
| 1.  | There is a special person who is around when I am in need.           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2.  | There is a special person with whom I can share my joys and sorrows. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3.  | My family really tries to help me.                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4.  | I get the emotional help and support I need from my family.          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5.  | I have a special person who is a real source of comfort to me.       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6.  | My friends really try to help me.                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7.  | I can count on my friends when things go wrong.                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8.  | I can talk about my problems with my family.                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9.  | I have friends with whom I can share my joys and sorrows.            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | There is a special person in my life who cares about my feelings.    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | My family is willing to help me make decisions.                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | I can talk about my problems with my friends.                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

*Note.* <http://www.yorku.ca/rokada/psycetest/> by Ron Okada

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## Appendix C

## Self-Rating Depression Scale

Directions: For each item below, please place a check mark (√) in the column which best describes how often you felt or behaved this way during the past several days.

Place check mark (√) in correct column	A little of the time	Some of the time	Good part of the time	Most of the time
1. I feel down-hearted, blue and sad.				
2. Morning is when I feel the best.				
3. I have crying spells or feel like it.				
4. I have trouble sleeping through the night.				
5. I eat as much as I used to.				
6. I enjoy looking, talking to and being with attractive women/men.				
7. I notice that I am losing weight.				
8. I have trouble with constipation.				
9. My heart beats faster than normal.				
10. I get tired for no reason.				
11. My mind is as clear as it used to be.				
12. I find it easy to do the things I used to.				
13. I am restless and can't keep still.				
14. I feel hopeful about the future.				
15. I am more irritable than usual.				
16. I find it easy to make decisions.				
17. I feel that I am useful and needed.				

18. My life is pretty full.				
19. I feel that others would be better off if I were dead.				
20. I still enjoy the things I used to do.				

*Note.* Measures of Personality and Social Psychology Attitudes by Robinson, Shaver, & Wrightsman (Eds.).

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## Appendix D

## Cultural Collectivism-Individualism Scale

Directions: Rate the degree to which you agree or disagree with the following statements.

Response scales:

1	2	3	4	5
Strongly disagree				Strongly agree

1. \_\_\_ If the group is slowing me down, it is better to leave it and work alone.
2. \_\_\_ It is foolish to try to preserve resources for future generations.
3. \_\_\_ I am not to blame if one of my family members fails.
4. \_\_\_ To be superior a person must stand alone.
5. \_\_\_ People should not be expected to do anything for the community unless they are paid for it
6. \_\_\_ My happiness is unrelated to the well-being of my coworkers.
7. \_\_\_ Winning is everything.
8. \_\_\_ Even if a child won the Nobel Prize, the parents should not feel honored in any way.
9. \_\_\_ My parents' opinions are not important in my choice of a spouse.
10. \_\_\_ I am not to blame when one of my close friends fails.
11. \_\_\_ I would not let my parents use my car (if I had one), no matter whether they are good drivers or not.
12. \_\_\_ I would help within my means if a relative told me that s(he) is in financial difficulty.
13. \_\_\_ Only those who depend on themselves get ahead in life.
14. \_\_\_ If you want something done right you've got to do to yourself.
15. \_\_\_ What happens to me is my own doing.
16. \_\_\_ I like to live close to my friends.
17. \_\_\_ My coworkers' opinions are not important in my choice of a spouse.
18. \_\_\_ The motto "Sharing is both a blessing and calamity" is still applicable even if one's friend is clumsy, dumb, and causing a lot of trouble.
19. \_\_\_ I feel winning is important in both work and games.
20. \_\_\_ Success is the most important thing in life.
21. \_\_\_ When my colleagues tell me personal things about themselves, we are drawn closer together.
22. \_\_\_ When a close friend of mine is successful, it does not really make me look better.
23. \_\_\_ One need not worry about what the neighbors say about whom one should marry.
24. \_\_\_ I would not share my ideas and newly acquired knowledge with my parents.
25. \_\_\_ It annoys me when other people perform better than I do.

26. \_\_\_\_ Doing your best isn't enough; it is important to win.
27. \_\_\_\_ Children should not feel honored even if the father were highly praised and given an award by a government official for his contribution and service to the community.
28. \_\_\_\_ In most cases, to cooperate with someone whose ability is lower than oneself is not as desirable as doing the thing on one's own.
29. \_\_\_\_ In the long run the only person you can count on is yourself.

*Note.* Subjective culture, perceived social support, and adaptive coping: A multi-ethnic study of the transition to college by Angela Christine Ebero

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## Appendix E

## Demographic Questions

**Where did you hear about this study?**

---

**Which of the following best describes the area you live in?**

Rural  
Suburban  
Urban

**What is your gender?**

Female  
Male  
Other

**In what year were you born?**

---

**How would you classify yourself?**

African American or Black (non- Hispanic)  
American Indian or Alaska Native  
Asian  
Caucasian or White (non- Hispanic)  
Hispanic or Latino/a  
Middle Eastern  
Multiracial  
Pacific Islander or Native Hawaiian  
Other

**How many years of education you have completed?**

---

**Are you religious/spiritual?**

No  
Yes  
Unsure