

Running head: BUFFERING EFFECT OF SOCIAL INTEREST

**Buffering effect of social interest on stress and psychological well-being in
undergraduate students**

By

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Abstract

The following study aimed to investigate Alfred Adler's concept of social interest and its possible role as a buffer of stress on psychological well-being in undergraduate students. It was predicted that social interest would buffer the effects of stress on psychological well-being; specifically, those who show high levels of social interest would tend to experience a minimal decrease in their levels of psychological well-being when faced with highly stressful situations. One hundred and twenty-six first year psychology students completed questionnaires assessing social interest, social desirability, stress, and psychological well-being. As expected, a significant positive correlation was found between psychological well-being and social interest. Against expectations, a negative significant correlation between stress and social interest was found. In addition, results indicated that social interest did not buffer the effects of stress on psychological well-being. Limitations of the present study are discussed, as well as implications for future research.

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Alfred Adler's concept of social interest is a key component of individual psychology. In German it is *Gemeinschaftsgefühl*, which can be translated to "community feeling" and a disposition towards assisting others within society (Stoykova, 2013). Specifically, community feeling can be established through meaningful relationships as well as a desire to contribute to society. Social interest is both beneficial to society and central to personal adjustment (Leak & Leak, 2006). Crandall (1980) proposed that social interest is a necessary trait to a healthy personality and essential to well being. The valuing of things other than the self and concern for others without ulterior motive are fundamental aspects of this concept. Crandall (1984) describes caring about things beyond the self as a core value of social interest. Considering social interest as a value, it can impact cognitive, emotional, motivational, and behavioral aspects of an individual (Crandall, 1984). It includes an empathic understanding of the needs of others as well as an interest in human welfare. Social interest influences a person's motives, the way in which others are viewed, interpretation of any given situation, and ultimately one's behavior (Crandall, 1980). Co-operation, sharing, and helping others are all behavioral outcomes a person high in social interest displays (Crandall, 1980). Furthermore, people high in social interest have an optimistic outlook on life and a positive view of others.

A large body of research has examined the relationship between social interest and overall well-being. As well-being is subjective it can also be described as subjective well being, which is constituted of two main components (Diener, Suh, Lucas, & Smith, 1999). The first is cognitive well-being and the second is affective well-being. By definition, cognitive well-being involves a personal evaluation of how satisfied one is with life as a whole. On the other hand, affective well-being represents either positive or

negative moods and emotions, which can fluctuate from moment to moment (Diener et al., 1999). Additionally, Barlow, Tobin, and Schmidt (2009) define well-being in relation to social interest as displayed in hope and optimism. Furthermore, they found that hope and optimism are positively correlated to psychological well-being. In turn, it has also been found to be negatively correlated with depression (Crandall, 1984; Lantz, 1981).

There are a variety of factors that could explain this relationship. Social interest is a general feature that is important to adjustment and due to its negative correlation with depression is likely moderated by more specific factors such as locus of control, social support, meaningfulness of life, and optimism, as well as a de-emphasis of personal problems (Crandall, 1984). High social interest and low levels of depression could be linked to community inclusion (Crandall, 1984). A sense of belonging and community is a predictor of physical and mental health, and also acts as a protective agent (buffer) against stress (Nikelly, 2005). Involvement and connectedness within the community, and positive social relationships based on reciprocal caring of each other's well-being are good predictors of positive health outcomes. On the contrary, isolation from the community is linked to poor health outcomes and mental health issues (Crandall, 1984). In a study, examining the role of stress on social interest, Crandall (1978) exposed participants to a short-term loud noise. The results show that the noise stressor more negatively impacted those with previously lower levels of social interest than those with higher levels of social interest. Participants high in social interest appeared to be less repressive than low social interest participants (Crandall, 1978). These findings suggest that higher levels of social interest can serve to mitigate stressors, as well as, contribute to courage and psychological strength (Crandall, 1978). Additionally, Crandall's finding

aligns with other animal research where greater tolerance to physical stress has been found when rats were in the company of others compared to being on their own (Morrison & Hill, 1967). The importance of psychological, rather than physical closeness was further demonstrated by Back and Bogdonoff (as cited in Crandall, 1978), who found that physiological reactions to blood withdrawal were reduced when people were in the presence of friends. These findings suggest that individuals with highly developed social interest have greater levels of resilience and that social interest may function as a buffer in adverse events.

Many studies have sought to explore a buffering effect that can potentially reduce levels of stress (LaRocco, House & French, 1980; McMahon, Felix & Nagarajan, 2011). While social support has been linked to contributing to lower levels of stress, social support is an external factor, whereas social interest provides an individual with several ways of how to play an active role in one's psychological well-being. Through the development of meaningful relationships and a genuine desire to contribute to the well-being of others, the individual can take his or her well-being into his or her own hands. Thus, social interest can be acquired through practice and effort. Social support, on the other hand, encompasses a sense of passivity on the part of the individual where the individual relies heavily on others not the self, for their own happiness. As a clinical intervention strategy, the development of social interest would be far more valuable to one's psychological health as it encourages independence and a certain level of responsibility within the individual.

Research examining the buffering effects of social support on stress and well-being is well documented but there seems to be a paucity of research evaluating a

buffering effect of social interest on one's psychological well-being. Crandall (1984) examined the relationship between social interest, stress, and a given psychological symptom through self-report measures in students, which were given over a period of 1 year. He measured social interest using both the Social Interest Index (SII) and the Social Interest Scale (SIS). A year later he administered the Social Readjustment Rating Scale (SRRS), which is a checklist designed to measure the occurrences of life stresses, and the Multiple Affect Adjective Check List (MAACL), which measures participant's levels of anxiety, depression, and hostility, which Crandall deemed appropriate as indices of psychological disturbances (Crandall, 1984). Results indicated that individuals initially presenting with high social interest encountered less stressful situations in the following year (as measured by the SRRS) than those individuals with lower levels of social interest. Moreover, a negative correlation between social interest scores and scores on the MAACL indicate that those with high social interest were able to cope better when encountering stressors, than those with low social interest. With his study, Crandall was able to demonstrate that, social interest "acts in a casual manner to promote adjustment" (1984) and social interest acts as a protective agent on psychological symptoms. These findings certainly sound promising in the development of a possible buffering hypothesis of social interest, but before drawing such conclusions, it should be noted, that certain aspects of his study need to be addressed.

Crandall used partial correlations in order to account for the differences he found at different levels of stress. However, the use of hierarchical regression analysis can better account for potential variances and thus reduce statistical errors.

Secondly, a study by Leak (1991) found a positive correlation between the SII and the Marlowe-Crowne Social Desirability Scale (MC-C), which could account as a potential problem in Crandall's study. Individuals scoring high in social interest (as measured by the SII), might not actually have highly developed social interest, rather those individuals may respond in a socially desirable manner. To avoid this potential problem in the present study, I will administer the MC-C alongside a measure of Social Interest.

Lastly, Crandall's study employed the use of the SRRS, which is not designed to measure stress in undergraduate students, rather it is used for an adult population and does not particularly represent stressful events the average student would endure. In order to provide an accurate resemblance of student's stressful events, the present study will make use of the Undergraduate Stress Questionnaire.

Using the discussed studies as a rationale, the following study will investigate a possible buffering effect of social interest on stress and well-being in undergraduate students through the following hypotheses:

1. Social interest will positively correlate with psychological well-being; that is, higher levels of social interest will be associated with higher levels of well-being.
2. Social interest will negatively but non-significantly correlate with stress; that is, higher levels of social interest will be associated with lower levels of stress.
3. Social interest will buffer the effects of stress on well-being.
Specifically, under high levels of stress, students with high levels of

social interest will experience a minimal decrease in their levels of psychological well-being. In contrast, those with lower levels of social interest will experience a greater decrease in psychological well-being when stress levels are high.

Method

Participants

One hundred and twenty-six undergraduate students were recruited from introductory psychology courses at Thompson Rivers University in Kamloops, B.C. There were 87 females and 38 males between the ages of 17 to 42 ($M = 20.36$; $SD = 3.504$). One participant did not report his/her age and gender. Participants ranged from first year to fourth year, with there being 87 in first year, 22 in second year, 9 in third year, and 7 in fourth year. Data from participants 32 and 107 were eliminated due to the lack of questionnaire responses. All participants were required to give informed consent prior to participation (See Appendix E).

Questionnaires

The Sulliman Scale of Social Interest (SSSI; Appendix A)

The SSSI (Sulliman, 1973) is a 50-item questionnaire measuring social interest. The original scale consists of true or false answers but for our purpose we utilized a 4-point likert-type scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) to enable an analysis of internal consistency among the items. Total scores were calculated by summing each individual's response scores on the 50 items. All items are reverse coded with exception of items 1, 4, 6, 15, 17, 24, 29, 30, 33, 38, 43, 45, and 48. Possible scores could range from 50 to 200 with higher scores representing higher levels of social interest and lower scores representing lower levels of social interest. Previous research has shown that the SSSI has high internal consistency on a 4-point Likert scale ($r = .90$) with a validity coefficient of .71 (Mozdzierz, Greenblatt, & Murphy, 1988). Recent research also supports high internal consistency ($\alpha = .937$; Kaufman, 2014). The

SSSI has also been shown to be reliable and valid with a test re-test reliability of .82 (Crandall, 1991). Within the present study Cronbach's alpha was calculated using the revised SSSI, which showed relatively high internal consistency ($\alpha = .813$).

Undergraduate Stress Questionnaire (USQ; Appendix B)

The USQ (Crandall, Preisler, & Aussprung, 1992) is an 83-item life events checklist, measuring stress in undergraduate students. Life events are presented in descending order of severity, starting with a major life crisis and ending with a minor hassle. Item 52 "Ran out of typewriter ribbon while typing" has been changed to "Ran out of printer ink while printing", as well as item 74 "Checkbook didn't balance" has been changed to "Credit card maxed out/Debit card declined" to adjust for today's standard practices. Item 73 "Someone cut ahead of you in line" was inadvertently omitted during the write up process. Each checked item was given a score of 1 and non-checked items were given a score of 0, which resulted in total scores ranging from 0-82, with higher scores indicating higher levels of stress and lower scores representing lower levels of stress. In addition, items were assigned severity-weighting scores, which have been previously established by Crandall, Preisler & Aussprung (1992). Items 1 to 34 were given scores above 3.0 (representing "major" life events), items 35 to 82 were assigned scores below 3.0 (representing "minor" life events). The weighted scale correlated highly with the non-weighted version ($r = .991$).

Marlowe-Crowne Social Desirability Scale – Form C (MC-C; Appendix C)

Social desirability in students is a factor that can potentially alter responses in self-report questionnaires (Reynolds, 1982). Because items in the SSSI may provoke responses that are answered in a manner that reflects social desirability, we administered

the MC-C (Crowne & Marlowe, 1960; Reynolds, 1982). This questionnaire consists of 13 true or false items that assess an individual's tendency to distort answers in a socially desirable way. Socially desirable responses were given a score of 1. Items 5, 7, 9, 10 and 13 are reverse scored to reflect greater social desirability. Total scores ranged from 0 to 13 with higher scores reflecting higher levels of social desirability and lower scores indicating lower levels of social desirability. Form C of the MC demonstrated good reliability (.75; Reynolds, 1982). Within this study, internal consistency was low ($\alpha = .485$).

Ryff Measures of Psychological Well-being (RMPW; Appendix D)

The RMPW (Ryff, 1989) is a 42-item questionnaire measuring psychological well-being. The scale is divided into six different dimensions. For the purpose of this study, we only used items from the personal growth dimension, which is made up of seven items. Each item was scored on a 6-point likert-type scale (1 = strongly disagree, 2 = somewhat disagree, 3 = slightly disagree, 4 = slightly agree, 5 = somewhat agree, 6 = strongly agree) with possible scores ranging from 7 to 42. Negatively phrased items 1, 3, 5, and 6 were scored in reverse order. Reliability was high within this study ($\alpha = .810$). To determine if the degree of skewness is significant and problematic, skewness and Standard Error of skewness were calculated (Skewness = $-.745$; SE = $.217$). The numerical value of skewness was compared to twice the Standard Error of Skewness, which showed that the value for skewness did not fall within the range of SE ($-.217/+ .217$) of skewness, which indicates a non-normal distribution of scores.

Procedure

Participants were informed of the nature of the study, that their participation was voluntary, and that they could withdraw at any point without penalty. Participants gave informed consent before filling out the questionnaire packages (see Appendix E). In turn students received a 1% bonus towards their psychology course for their participation. Participants then received a questionnaire package consisting of a demographics page (see Appendix F), the SSSI, MC-C, USQ, RMPW (see Appendix A to D). The order of the questionnaires was counterbalanced to avoid potential order effects. After completion of the questionnaire package participants were debriefed (see Appendix G), informed of the hypotheses under investigation, and of the anticipated results.

Data Analyses

The raw scores of all 4 questionnaires were used to conduct correlational analyses. Pearson correlational coefficients were used to examine the relationships between the 4 measures of well-being, stress, social interest, and social desirability. To create two groups: low social interest and high social interest, a median split was performed. The differences between these groups' mean scores on well-being, stress, and social desirability was then analyzed using *t*-tests. Given that there were three *t* tests conducted, a Bonferroni correction was used to manage Type I errors.

Hierarchical regression analyses were performed to test hypothesis three. The criterion variable (Psychological well-being) was first regressed on social desirability. The product of this regression was then regressed on stress and social interest resulting in the reference R_1^2 value. We then multiplied stress with social interest resulting in the interaction term, which was included in the regression analyses to determine whether or

not there is an interaction effect; if so, then this would demonstrate that the relationship between stress and well-being varies, depending on the level of social interest. In order for this to be the case, the new R_2^2 value must be significantly different from the reference R_1^2 value, indicating that an interaction effect accounts for a portion of variance in well-being levels above and beyond the individual predictors. We analyzed data using IBM SPSS Statistics 24.

Results

Descriptive Statistics and Results

As expected, there was a significant positive relationship between social interest and psychological well-being, $r(122) = .504, p < 0.01$, therefore supporting our first hypothesis. Against expectations, social interest and stress were negatively and significantly correlated $r(122) = -.235, p < 0.01$, hence, not supporting our second hypothesis. Noteworthy is that stress was also significantly but negatively correlated with social desirability, indicating that those experiencing higher levels of stress tend to engage in less socially desirable behaviours $r(122) = -.351, p < 0.01$. Social desirability was also found to significantly and positively correlate with social interest, $r(122) = .354, p < 0.001$. A median split of social interest scores was performed to create a low and high social interest group. Those in the low social interest group scored lower on the USQ; although significance level was not reached, results of a t-test showed that it was very close to reaching statistical significance, $t(106) = 1.87, p = 0.64$.

Buffering Analysis

In order to test our third hypothesis we used hierarchical regression analysis to assess the relationship between social interest, stress, and psychological well-being while controlling for social desirability.

Social desirability as measured by the MC-C was partialled out from social interest to provide a pure measure of social interest and controlling for socially desirable responses, which could be confounding. Social interest and stress were then regressed on psychological well-being, which resulted in the R_1^2 value $\beta = .080$, $t(122) = 2.590$, $p < 0.05$. These results suggest that the response variables of stress and social interest can predict a change in the measures of psychological well-being. In step three, we created the interaction term of social interest and stress which was included in the regression analysis and resulted in the R_2^2 value $\beta = -.003$, $t(121) = -1.95$, $p = .054$, n.s. Significance level was not reached, however, with a p-value of .054 a trend towards statistical significance was achieved. Due to these results, our buffering hypothesis (hypothesis 3) was only partially supported. In order for the buffering hypothesis to be sustained, three conditions need to be met: (1) students who have little social interest will have negative reactions to high levels of adverse life events (stressors), (2) students who display high social interest, will not show as much negative reaction to stressors, (3) an interaction effect must be present to support the existence of a main effect of stress. In step three; we almost got significant results, which suggests that social interest buffered the effects of stress minimally. However, since we did not achieve significant results, we cannot conclude that a true buffering effect exists. In hypothesis three, we hypothesized that students with high levels of social interest will experience minimal decrease in their levels of psychological well-being while under the influence of high levels of stress,

which was supported in this study (see graph, p. 28). The second part of our third hypothesis however was not supported. Contrary to what we hypothesized, those with lower levels of social interest, showed an increase in psychological well-being when stress levels increased.

Discussion

The present study examined the relationship between social interest, stress, and psychological well-being in undergraduate students. Specifically, it was examined if social interest would buffer or safeguard a student from stressful events. Hierarchical regression analysis was completed to assess the individual relationships between social interest, stress, and psychological well-being while controlling for social desirability.

Previous research demonstrated a significant relationship between social interest and social desirability (Leak, 1982). This particular research shows that individuals tend to exaggerate positive attributes and downplay negative attributes to make themselves more socially desirable; that is, individuals like to present themselves in a more positive light and answer questions in what they believe to be more socially desirable. This is especially true for self-report questionnaires. Considering this finding, social desirability was removed from social interest scores in order to create the truest measure of social interest.

Semi partial correlation removed the influence of social desirability from the effects of social interests (Step 1) and those results were significant. Further, when social interest and stress were regressed from psychological well-being, we also achieved significant results. To ensure that relationships between social interest and psychological well-beings and social interest and stress are true measures and not merely a student's

desire to present themselves in a socially desirable way, the effects of social desirability on social interest needed to be removed.

A negative relationship between social desirability and stress indicated that as stress increased levels of social desirability decreased. That is, the individual was less likely to present him or herself in a socially desirable way when they experienced more stressful events.

Results of the present research supported the first hypothesis. As predicted, social interest was significantly and positively correlated with psychological well-being. Those individuals showing higher levels of social interest also showed higher levels of psychological well-being. This finding is consistent with research conducted by Rich Gilman (2000) where he found that social interest was significantly correlated with higher levels of overall life satisfaction. Furthermore, results support Adler's theory of individual psychology; stating that, an individual's significance and well-being is tied to their level of connection with others (Adler, 1991). Individuals lower in social interest experience more anxiety and sadness when encountered with stressful situations (Nikelly, 1991). Based on these theories, we can assert that when a person feels more connected to their community, they benefit by being more resilient to stressful life events and in turn experience greater mental health.

In our second hypothesis, we predicted that social interest would negatively but non-significantly correlate with stress; however, results of our present research showed that stress and social interest were significantly and negatively correlated. In order to continue with a multiple regression analysis, it was necessary to achieve a non-significant result for hypothesis two. As stated by Cohen and Willis (1985), a weak relationship must

be evident between the buffering variable, social interest, and stress to ensure non-confounding.

Our third hypothesis was partially supported. As predicted, students with high levels of social interest experienced little to no change in psychological well-being when stressors increased. This result is consistent with existing literature. Research by Crandall (1978) suggests that social interest alleviates the experience of stressful life events, and that those with higher levels of social interest are more resilient towards stressors, which was supported in our data set.

However, we further predicted, that students with lower levels of social interest would show a decrease in psychological well-being scores. Conversely, our research showed the opposite; where low social interest students showed an increase in psychological well-being when stress levels were high. Research by Nikelly (1991) suggests that individuals low in social interest experience more anxiety and sadness when they are faced with stressful events; our results are non-supportive of previous literature.

The main focus of our study was to investigate a buffering effect of social interest. Generally, for a buffering effect to be present, the R_2^2 value must be significantly different from the R_1^2 value; our study did not achieve a significant difference between these values, when multiple regression analysis was performed. Hence, we can not conclude that a buffering effect was present and that social interest does not appear to protect an individual from adverse effects.

The present research contributes to the understanding of how social interest might influence the relationship between stress and psychological well-being. However, there are certain limitations to this research. One limitation was the Ryff Measures of

Psychological well-being scale (RMPWB; Ryff, 1989). The RMPWB scale is a 42-item questionnaire that assesses psychological well-being on 6 different dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self acceptance (Ryff, 1989). In order to keep within a certain time limit when students completed their questionnaire packages, we decided to use only items from the personal growth dimension, which consisted of seven items. After comparing data to the items on the scale, we found that simply using items from the personal growth dimension did not adequately assess psychological well-being. As above mentioned, students in the low social interest group improved on the Ryff when stress levels were higher. If we clarify that students improved on personal growth, it makes sense to say that students would want to improve their life and actively engage in activities to enhance their well-being when stress levels are higher. Specifically, when low social interest students experience a lot of stress they actually step up to the plate and took responsibility for their actions. Future research should make use of a different questionnaire, such as, the We believe that our results would have differed if we would have taken the full scale including all six dimensions. Future research should utilize the full scale, which has been shown to accurately assess psychological well-being.

Another limitation was the use of the Undergraduate Stress Questionnaire (Crandall, Preisler & Aussprung, 1992). The questionnaire measures life event stress in undergraduate students and examines the specific source of the stressor. Research by Verman and Nambiar (2014) found that academic stressors were reported as the greatest sources of stress. Further, they found that financial or personal stressors were less significant in students' lives. The USQ however, assesses a wide range of stress sources

including financial and personal issues. We found that some items assessing personal issues were highly suggestive of temporary loss of social interest within the individual. For example, item 1: Death (family member or friend), which was weighted most heavily indicates that an individual needs a certain amount of coping strategies; if the student has poor coping skills, he/she may withdraw from the community for a period of time during grievance. If this were the case, the student would temporarily rate low on the social interest scale and rate higher after some time.

Furthermore, the large amount of check box like questions, may lead some students to 'pencil whip' depending on their level of dedication. We found that there were a large amount of outliers, checking off significantly more events than others. Additionally, some may see "a bad haircut day" (item 64) worse than some and check it off whilst others leave it blank. Moreover, some of the items are co-dependent; a student may experience death of a parent (item 1) and therefore experience a loss of financial support, which would lead to an additional amount of items checked off, i.e. item 20: "dependent on other people", item 27: "lack of money".

We believe that the current research did not support a buffering model of social interest, due to the use of our questionnaires, mainly the USQ and the RMPWB. Considering the use of only one dimension of the RMPWB, we trust that this measure was inadequate to assess psychological well-being. Also, the USQ seemed to have resulted in wide range of achieved scores, leaving its stress assessment questionable.

However, the current research holds important implications in clinical psychology and the understanding of health pro social behaviours. It contributes to possible solutions that may help undergraduate students (and the wider community) help to understand how

commitment to one's community can benefit psychological well-being by eliminating stressors they experience in daily life. Conducting research on this topic we become better educated on how stress can negatively impact our life and cause mental health disturbances. Further, an investigation into the buffering effect of social interest can teach techniques to limit the experience of stress. If a feeling of social interest and a connection to the local community is established, mental health should increase as a result.

References

- Ansbacher, H. L. (1968). The concept of social interest. *Journal of Individual Psychology, 24*(2), 131-149.
- Barlow, P. J., Tobin, D. J., & Schmidt, M. M. (2009). Social interest and positive psychology: Positively aligned. *The Journal of Individual Psychology, 65*, 191-202.
- Cohen, S., & McKay, G. (1984). Social support, stress, and the buffering hypothesis: a theoretical analysis. *Handbook of Psychology and Health, 253-267*.
- Crandall, J.E. (1978). The effect of stress on social interest and vice versa. *Journal of Individual Psychology, 34*(1), 40-47.
- Crandall, J. E. (1980). Adler's concept of social interest: Theory, measurement, and implications for adjustment. *Journal of Personality and Social Psychology, 39*, 481-495. doi:10.1037/0022-3514.39.3.481
- Crandall, J. E. (1984). Social interest as a moderator of life stress. *Journal Of Personality And Social Psychology, 47*(1), 164-174. doi:10.1037/0022-3514.47.1.164
- Crandall, C.S., Preisler, J., & Aussprung, J. (1992). Measuring life event stress in the lives of college students: The undergraduate stress questionnaire. *Journal of Behavioral Medicine, 15*(6), 627-662. doi:10.1007/BF00844860
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354. doi:10.1037/h0047358
- Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302.

- Gilman, R. (2000). The relationship between life satisfaction, social interest, and frequency of extracurricular activities among adolescent students. *Journal of Youth and Adolescence*, 30(6), 749-767.
- Johnston, N. (2012). Links between social interest and subjective measures of psychological well-being. Unpublished manuscript, Department of Psychology, Thompson Rivers University, Kamloops, Canada.
- Kaufman, S. (2014). *Social Interest and Giving Social Support in Relation to Emotion*. Unpublished manuscript. Thompson Rivers University, Kamloops, British Columbia.
- Lantz, J. E. (1981). Depression and social interest tasks. *Journal of Individual Psychology*, 7, 113-116.
- LaRocco, J.M., House, J.S., & French, J.R. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behavior*, 21(3), 202-218.
- Leak, G. K., & Leak, K. C. (2006). Adlerian social interest and positive psychology: A conceptual and empirical integration. *The Journal of Individual Psychology*, 62, 207-223.
- McMahon, S.D., Felix, E.D., & Nagarajan, T. (2011). Social support and neighborhood stressors among African American youth: Networks and relations of self-worth. *Journal of Child and Family Studies*, 20(3), 255-262.
- Morrison, B., & Hill, W. (1967). Socially facilitated reduction of the fear response in rats raised in groups or in isolation. *Journal of Comparative and Physiological Psychology*, 63(1), 71-76.

- Mozdzierz, G. J., Greenblatt, R. L., & Murphy, T. J. (1986). Social Interest: The validity of two scales. *Individual Psychology: Journal of Adlerian Theory, Research & Practice*, 42(1), 35-43.
- Nikelly, A. G. (1991). Social interest a Paradigm for mental health education. *Individual Psychology*, 47(1), 79-81.
- Nikelly, A. G. (2005). Positive health outcomes of social interest. *The Journal of Individual Psychology*, 61, 329-342.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology*, 38, 119-125.
doi:10.1002/1097-4679(198201)38:1<119::AID-JCLP2270380118>3.0.CO;2-I
- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.
- Schwartz, C., Meusenhelder, J. B., Ma, Y., & Reed, G. (2003). Altruistic social interest behaviors are associated with better mental health. *Psychosomatic Medicine*, 65, 778-785. doi:10.1097/01.PSY.0000079378.39062.D4
- Sulliman, J. R. (1973). The development of a scale for the measurement of social interest. *Dissertation Abstracts International: Section B. Sciences and Engineering*, 34, 2914.
- Stoykova, Z. (2013). Social interest and motivation. *Trakia Journal of Sciences*, 3, 286-290.
- Watkins, E. & St. John, C. (1994). Validity of the sulliman scale of social interest. *Journal of Individual Psychology*, 50(2). 166-168.

Watkins, E. & Blazina, C. (1994). Reliability of the Sulliman scale of social interest.

Journal of Individual Psychology, 50(2). 164-165.

Appendix A

Questionnaire: Sulliman Scale of Social Interest

Read each statement carefully and, using the scale below, circle the number which best reflects how strongly you agree or disagree with the statement.

- 1 = strongly disagree
- 2 = disagree
- 3 = agree
- 4 = strongly agree

1. People are all of equal worth, regardless of what country they live in

1 2 3 4

2. If it were not for all the bad breaks which I have had, I could really have amounted to something.

1 2 3 4

3. I often feel like I am completely alone in the world.

1 2 3 4

4. I think that most people are friendly

1 2 3 4

5. I get angry when people do not do what I want them do.

1 2 3 4

6. Members of my family have great concern for me.

1 2 3 4

7. I wish that everyone would leave me alone.

1 2 3 4

8. I like to watch movies where the bad guy wins

1 2 3 4

- 1 = strongly disagree
- 2 = disagree
- 3 = agree
- 4 = strongly agree

9. If people make things difficult for me then I will try to make things difficult for them.

1 2 3 4

10. It seems like nothing ever changes for me.

1 2 3 4

11. A person must watch out for himself because no one else will help him.

1 2 3 4

12. Most people only appear to be honest but do many dishonest things.

1 2 3 4

13. I don't let anyone tell me what to do.

1 2 3 4

14. I would like to make the world a perfect place in which to live because then I would be seen by others as the most important person alive.

1 2 3 4

15. The world is a great place in which to live.

1 2 3 4

16. I like animals more than I like people.

1 2 3 4

17. I like to make new friends.

1 2 3 4

18. Some people do not deserve to live.

1 2 3 4

1 = strongly disagree
 2 = disagree
 3 = agree
 4 = strongly agree

19. It seems like people are always doing bad things to me.

1 2 3 4

20. Most people have little respect for others.

1 2 3 4

21. It seems like everything I do turns out wrong.

1 2 3 4

22. There are some people whom I hate.

1 2 3 4

23. No one really cares about me.

1 2 3 4

24. Things usually work out for the best.

1 2 3 4

25. I would rather complete the “perfect crime” and not be caught than to complete a work of art such as a painting.

1 2 3 4

26. Most people are concerned only with themselves.

1 2 3 4

27. Sometimes I like to hurt people.

1 2 3 4

28. I wish that I could run away and leave everyone in the world behind me.

1 2 3 4

- 1 = strongly disagree
- 2 = disagree
- 3 = agree
- 4 = strongly agree

29. I am an important person in the lives of some other people.

1 2 3 4

30. I would like to help every person in the world.

1 2 3 4

31. Most people treat me more like a little kid than an adult.

1 2 3 4

32. Most people would take advantage of me if they could.

1 2 3 4

33. I am a happy person.

1 2 3 4

34. I care about people that I know but not about complete strangers.

1 2 3 4

35. I sometimes like to hurt animals for no reason at all.

1 2 3 4

36. No one tries to understand me and my feelings.

1 2 3 4

37. I wish that I could destroy the world and build it back up the way that I would like it to be.

1 2 3 4

38. People cooperate with me most of the time.

1 2 3 4

39. If something goes wrong for me, I become extremely angry.

1 2 3 4

1 = strongly disagree
 2 = disagree
 3 = agree
 4 = strongly agree

40. There aren't very many things that I care about.

1 2 3 4

41. I hope that I get the chance to get back at some people for the bad way in which they have treated me.

1 2 3 4

42. People can't be trusted.

1 2 3 4

43. This is a great time to be alive.

1 2 3 4

44. People are not very friendly.

1 2 3 4

45. I have confidence in other people.

1 2 3 4

46. To get ahead in this world, you have to step on people along the way.

1 2 3 4

47. I hate to listen to other people's problems.

1 2 3 4

48. People are basically good.

1 2 3 4

49. There are several people whom I hate.

1 2 3 4

1 = strongly disagree

2 = disagree

3 = agree

4 = strongly agree

50. If I had control over people, I would make them do what I wanted them to do.

1

2

3

4

Appendix B

Questionnaire: Undergraduate Stress Questionnaire

Review the following list of events and check all those that have you have experienced during the current semester.

- 1. Death (family member or friend)
- 2. Had a lot of tests
- 3. It's finals week
- 4. Applying to graduate school
- 5. Victim of a crime
- 6. Assignments in all classes are due the same day
- 7. Breaking up with boy/girlfriend
- 8. Found out boy/girlfriend cheated on you
- 9. Lots of deadlines to meet
- 10. Property stolen
- 11. You have a hard upcoming week
- 12. Went into a test unprepared
- 13. Lost something (especially wallet)
- 14. Death of a pet
- 15. Did worse than expected on a test
- 16. Had an interview
- 17. Had projects, research papers due
- 18. Did badly on a test
- 19. Parents getting divorce
- 20. Dependent on other people
- 21. Having roommate conflicts
- 22. Car/bike broke down, flat tire etc.
- 23. Got a traffic ticket
- 24. Missed your period and waiting
- 25. Coping with addictions
- 26. Thoughts about future
- 27. Lack of money
- 28. Dealt with incompetence at the Registrar's Office
- 29. Thought about unfinished work
- 30. No sleep
- 31. Sick, Injury
- 32. Had a class presentation
- 33. Applying for a job
- 34. Fought with boy/girlfriend
- 35. Working while in school

- 36. Arguments, conflict of values with friends
- 37. Bothered by having no social support from family
- 38. Performed poorly at a task
- 39. Can't finish everything you need to do
- 40. Heard bad news
- 41. Had confrontation with an authority figure
- 42. Maintaining a long-distance boy/girlfriend
- 43. Crammed for a test
- 44. Feel unorganized
- 45. Trying to decide on major
- 46. Feel isolated
- 47. Parents controlling with money
- 48. Couldn't find a parking space
- 49. Noise disturbed you while trying to study.
- 50. Someone borrowed something without permission
- 51. Had to ask for money
- 52. Ran out of printer ink while printing
- 53. Erratic schedule
- 54. Can't understand your professor
- 55. Trying to get into your major or (another) college
- 56. Registration for classes
- 57. Stayed up late writing a paper
- 58. Someone you expected to call did not
- 59. Someone broke a promise
- 60. Can't concentrate
- 61. Someone did a "pet peeve" of yours
- 62. Living with boy/girlfriend
- 63. Felt need for transportation
- 64. Bad haircut today
- 65. Job requirements changed
- 66. No time to eat
- 67. Felt some peer pressure
- 68. You have a hangover
- 69. Problems with your computer
- 70. Problem getting home from bar when drunk
- 71. Used a fake ID
- 72. No sex in a while
- 74. Credit card maxed out/Debit card declined
- 75. Visit from relative and entertaining them
- 76. Decision to have sex on your mind
- 77. Talked with a professor

- 78. Change of environment (new doctor, dentist etc.)
- 79. Exposed to upsetting TV show, book, or movie
- 80. Got to class late
- 81. Holiday
- 82. Sat through a boring class
- 83. Favorite sporting team lost

Appendix C

Questionnaire: The Marlowe-Crowne Social Desirability Scale – Form C

Please circle either “true” or “false” to the following questions:

1. It is sometimes hard for me to go on with my work if I am not encouraged.
True False
2. I sometimes feel resentful when I do not get my way.
True False
3. On a few occasions I have given up doing something because I thought too little of my ability.
True False
4. There have been a few times when I felt like rebelling against people in authority even though I knew they were right
True False
5. No matter who I’m talking to; I am always a good listener.
True False
6. There have been occasions when I took advantage of someone.
True False
7. I am always willing to admit when I make a mistake.
True False
8. I sometimes try to get even rather than forgive and forget.
True False
9. I am always courteous, even to people who are disagreeable.
True False
10. I have never been irked when people expressed ideas very different from my own.
True False
11. There have been times when I was quite jealous of the good fortune of others.
True False
12. I am sometimes irritated by people who ask favors of me.
True False
13. I have never deliberately said something that hurt someone’s feelings.
True False

Appendix D

Questionnaire: Ryff Measures of Psychological Well-being

Please read the statements below and circle the number, which best reflects how strongly you agree or disagree with each statement.

- 1 = Strongly disagree
- 2 = Somewhat disagree
- 3 = Slightly disagree
- 4 = Slightly agree
- 5 = Somewhat agree
- 6 = Strongly agree

1. I am not interested in activities that will expand my horizon.

1	2	3	4	5	6
---	---	---	---	---	---

2. I think it is important to have new experiences that challenge how I think about myself and the world.

1	2	3	4	5	6
---	---	---	---	---	---

3. When I think about it, I haven't really improved much as a person over the years.

1	2	3	4	5	6
---	---	---	---	---	---

4. I have the sense that I have developed a lot as a person over time.

1	2	3	4	5	6
---	---	---	---	---	---

5. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.

1	2	3	4	5	6
---	---	---	---	---	---

6. I gave up trying to make big improvements in my life a long time ago.

1	2	3	4	5	6
---	---	---	---	---	---

7. For me, life has been a continuous process of learning, changing, and growth.

1	2	3	4	5	6
---	---	---	---	---	---

Appendix E



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CONSENT TO PARTICIPATE IN RESEARCH
DEPARTMENT OF PSYCHOLOGY

Note: The University and those conducting this project subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of subjects. This form and the information it contains are given to you for your own protection and full understanding of the procedures, risks and benefits. This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details, feel free to ask at anytime. Please take the time to read this carefully and to understand any accompanying information.

You have been asked to participate in a research study conducted by Lisa Bajkov and Dr. Reid Webster of the Psychology Department at Thompson Rivers University. Participation is completely voluntary and you are free to withdraw at any time without penalty. If you decide to participate, you will receive a 1% bonus credit in this course. Should you decide to participate you will be asked to complete four questionnaires, which should take about 20 minutes. Additionally, you will complete a form including your student number, name, and course information. This information is kept separate from your questionnaires and only used to ensure that you receive your 1% credit. Upon completion, please sit quietly with the questionnaires turned over until everyone has finished and I collect them. Once all the questionnaires are collected, I will explain the purpose of my study and what I expect to find. You are not expected to experience any discomfort filling out these questionnaires; however, some questions may be personal. You are not obliged to answer any questions that you find objectionable. If you chose to withdraw, simply turn over your questionnaires and remain seated until I collect them.

Please do not write your name, or any other identifying information on the questionnaires. All information provided, will be kept confidential, only to be used for the purpose of this study. Only Dr. Webster, my faculty supervisor, and myself will have access to the information collected. You will not be identified in any way if the results are published or presented at psychological conferences. All records will be destroyed seven years following the collection.

If you have any questions, please feel free to ask. If you have any concerns about this study, please contact Dr. Reid Webster, my faculty supervisor.

Thank you for your time and participation.

Student Researcher: Lisa Bajkov

Faculty Supervisor: Dr. Reid Webster: rwebster@tru.ca or 250-377-6085

Psychology Department Chair: Jacqueline Kampman: jkampman@tru.ca or 250-828-5234

Research Ethics Board: TRU-REB@tru.ca or 250-828-5000

Student Name

Signature

Student Number

Appendix F

Demographics

Age:

Gender: Male _____ Female _____ Other _____

Year of study: 1st year _____ 2nd year _____ 3rd year _____ 4th year _____

Appendix G

Debriefing Statement

The four questionnaires you just completed measure social interest, social desirability, psychological well-being, and levels of stress in undergraduate students.

Social interest is conceptualized as the interest and concern for others without an ulterior motive, caring about human welfare and valuing the feeling of community. Social interest is not only inherent but it can also be established through meaningful relationships with one's community, family, and friends.

The purpose of this study is to identify if social interest can serve as a buffer of stress in students. Specifically, I am interested in determining if higher levels of social interest can buffer a student's level of stress compared to those who have lower levels of social interest.

I predict that those showing higher levels of social interest will experience lower levels of stress and those showing lower levels of social interest will in turn experience higher levels of stress. Furthermore, I hypothesize that those achieving lower stress scores will also experience higher levels of psychological well-being and vice versa.

In conclusion, I would like to thank you for your participation. If you have any questions or concerns, or would like to know the results of this study, please feel free to contact me, Lisa Bajkov at bajkovl10@mytru.ca or my faculty supervisor, Dr. Webster at rwebster@tru.ca. Additionally, you can contact the Research Ethics Board at TRU-EB@tru.ca or 250-828-5000, which has reviewed and approved this investigation. If you felt any discomfort as a result of this study, you may contact the TRU Counseling service at 250-828-5023, in Old Main 1651, for support.

Thank you,

Student Investigator: Lisa Bajkov
Faculty Supervisor: Dr. Reid Webster

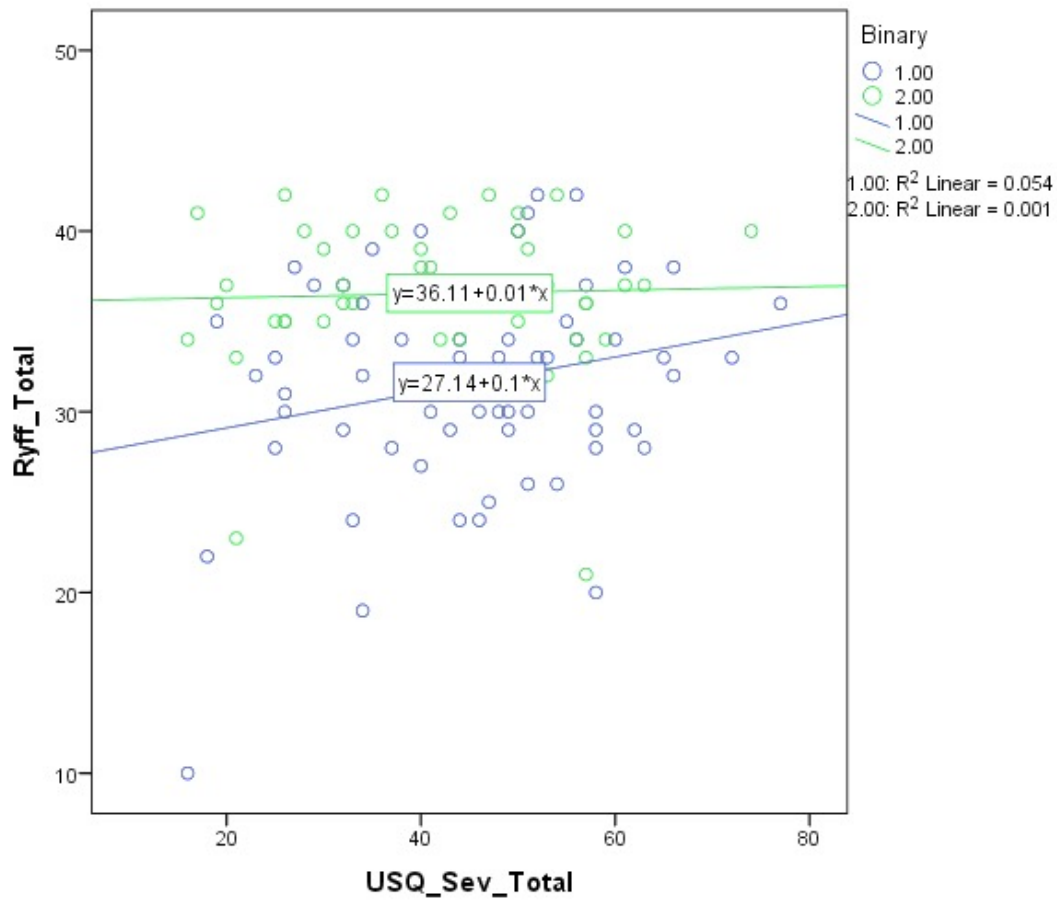


Figure 1

Buffering effect social interest, stress, and psychological well-being