Psychological well-being in medical undergraduates in a rural medical college in South India

Background: Medical colleges strive to create a learning environment best suitable for undergraduate medical education. In this process, measures taken can affect and influence the medical undergraduate psychological well-being. The demands of medical education lead to a psychological distress far beyond that experienced by the students of other specialties. Aims: The aim of this study is to study the levels of psychological well-being in medical undergraduates. Materials and Methods: Using a cross-sectional design, 402 medical students were surveyed using the Ryff’s Psychological Well-being Scale. Results: Low psychological well-being is evident in most of the medical undergraduates with the presence of stressors playing a significant role on psychological well-being with academic stress taking a major role. Conclusion: As depicted from the current study, academic stress plays a role in low psychological well-being of medical students.

Psychological well-being is about the lives going well. It is the combination of feeling good and functioning effectively.[1] The “feeling good” component encompasses emotions such as happiness, contentment, interest, engagement, confidence, and affection. While the component of “functioning effectively” involves the utilizing one’s potential to the fullest, exercising control over one’s life having a sense of purpose and experiencing positive relationships.

Psychological well-being is viewed as a combination of positive affective states such as happiness and functioning with optimal effectiveness in individual and social life.[2] Some individuals demonstrate the high level of well-being despite adverse circumstances, whereas others show low levels of well-being despite favorable conditions.[3]

Medical students face various challenges to their well-being during medical training.[4] Persistent worries and fear of not achieving set objectives have a negative impact on a medical student’s perception of well-being.[5] Psychological well-being is beneficial for adults to live a healthy life, especially its importance in the college years cannot be
undermined. As Ryff proposed psychological well-being as “the striving for perfection that represents the realization of one’s true potential” is easier said than done in medical students who face a gamut of problems that stem from personal, academic, and socio-cultural factors.

Late adolescence is considered to be a transition period of giving up the childhood ties to forming an identity apart from social and familial norms. In addition, medical undergraduates have to deal with a new environment, to relate to other students, enduring a competitive threat, adjust to new teachers and teaching methods. To top it, medical students additionally have to cope with the issues of life and death within the context of their relationship to patients. These problems that are unique to the medical undergraduates can have damaging effects not only on their adaptive skills in the studentship but also long-standing effects on the well-being even as medical professionals.

Earlier research focused on the psychopathology and mental disorders and positive aspects of human functioning was neglected. In recent decades, there has been a paradigm shift from disease and deficit model to examine how individuals can be well and happy and to understand what makes an individual flourish and function optimally. This new focus has necessitated further research in how well medical under graduates perceive their well-being. In this context, the present study aimed to (1) study the levels psychological well-being in medical under graduates.

**MATERIALS AND METHODS**

This is a cross-sectional descriptive study conducted in PES Institute of Medical Sciences and Research, Kuppam, Andhra Pradesh, India. Convenience sampling technique was used. Participants included the 1st, 2nd, 3rd, and 4th year M.B.B.S students. Students were prior notified of the study and were motivated to participate, with the understanding that the study was of voluntary nature. Students were approached during one of their regular lectures, with prior permission from the principal and consent of the concerned faculty. Directions to fill the sociodemographic questionnaire and rating scale were given verbally. The purpose of the study was explained, those who were willing to participate in the study were distributed hard copy of the questionnaire and scales along with the informed consent and the responses were collected. All participants were assured of confidentiality of the data provided. Maximum participation was encouraged by emphasizing that the questionnaire was anonymous and would not be revealed to parents or faculty. Students took 30–40 min to complete the questionnaire. The completed questionnaires were collected for the data analysis. The data were collected in the mid–academic year to ensure that exam stress will not affect the analysis.

Those participants who gave written informed consent were included in the study. Students with preexisting medical or psychiatric illnesses were excluded. Incomplete questionnaire was excluded.

The approval of Institutional Ethics Committee was obtained before initiation of the study.

**Statistical analysis**

The data will be entered into MS Excel 2007 version and further analyzed using the SPSS software version 20 (IBM corp., Armonk, N.Y., USA). For descriptive analysis, the categorical variables will be analyzed by using percentages, and the continuous variables will be analyzed by calculating mean ± standard deviation (SD). For inferential analysis, the numerical data were analyzed using t-test; categorical data were analyzed using the Chi-square test. Logistic regression will be used to study the association between various factors studied and the outcome and $P < 0.05$ will be considered as statistically significant.

**Instruments**

**Ryff scales of psychological well-being**

This study used the 42-item version. It consists of consist of a series of statements reflecting the six areas of psychological well-being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Participants rate statements on a scale of 1–6, with 1 indicating strong disagreement and 6 indicating strong agreement. Responses are totaled for each of the six categories. Prior to the totaling, items with negative content were reverse scored so that high values indicated psychological well-being. The scale has sound psychometric properties and has been used as a comprehensive and reliable measure of well-being in several contexts. All six scales have demonstrated excellent internal consistency, with Cronbach’s alpha values of 0.93 (self-acceptance), 0.91 (positive relations with others), 0.90 (environmental mastery), 0.90 (purpose in life), 0.87 (personal growth), and 0.86 (autonomy). Test-retest reliability coefficients ranged from 0.81 to 0.85. Research done previously focusing on the reliability and validity of the scale in different cultural contexts supports the six factor model.

**RESULTS**

A total of 402 medical under graduates participated in the current study to assess the levels of psychological well-being. The age of the participants ranged from 18 to 25 years with most of the study participants (59.7%) belonged to <20 years of age. Majority of the medical undergraduates (35.07%) were in the 1st year of their
medical education. While the least participation in the study belonged to the 4th year (16.92%) [Table 1].

Low psychological well-being was evident in 203 of the respondents (50.5%), with a mean and SD of 172.8 and 23.9, respectively, for the total score of psychological well-being. While on the sub-scales, the mean and SD were as follows: autonomy (M - 27.02, SD - 6.44), environmental mastery (M - 27.25, SD - 4.60), personal growth (M - 30.04, SD - 5.53), positive relations with others (M - 29.4, SD - 6.19), purpose in life (M - 30.62, SD - 5.55), and self-acceptance (M - 29.34, SD - 6.14). When the subscales were considered, majority of the students scored less on the dimensions of autonomy, positive relations with others, environmental mastery, and personal growth. Students have done reasonably well on the self-acceptance and purpose in life dimension.

Out of the 251 female participants, 63.3% (n = 126) experienced high psychological well-being Table 2.

In male participants 38.42% (n = 78) of the 151 reported of low psychological well-being which was statistically not significant. High psychological well-being was evident in 62.3% (n = 124) of the medical students aged < 20 years. Majority of the 1st year MBBS students (37.7%) showed high psychological well-being which is statistically not significant.

Out of the 402 respondents, 138 (34.3%) reported of no stressors. High psychological well-being was evident in 39.8% (n = 79) of respondents who had no stressors which was statistically significant. Those who scored high on environmental mastery, positive relations, and self-acceptance subscales exhibited least stressors which are statistically significant [Tables 3-5]. Females also scored high on personal growth subscale (67.51%) which is statistically significant Table 6.

High psychological well-being was observed in medical students whose father’s occupation being a government employee (32.7%) and being self-employed doing business (29.7%) which is statistically significant. As the students progressed in the year of their MBBS education, it was noted that they scored less on the purpose in life subscale which is statistically significant Table 7.

**Table 1: Sociodemographic profile of medical undergraduates**

| Sociodemographic variable       | Frequency, n (%) |
|---------------------------------|------------------|
| **Age (years)**                 |                  |
| <20                             | 240 (59.70)      |
| 21-22                           | 140 (34.83)      |
| >23                             | 22 (5.47)        |
| Total                           | 402 (100.00)     |
| **Sex**                         |                  |
| Female                          | 251 (62.44)      |
| Male                            | 151 (37.56)      |
| Total                           | 402 (100)        |
| **Year of MBBS**                |                  |
| 1                               | 143 (35.07)      |
| 2                               | 97 (24.13)       |
| 3                               | 96 (23.88)       |
| 4                               | 68 (16.92)       |
| Total                           | 402 (100)        |
| **Father’s occupation**         |                  |
| Business                        | 140 (34.83)      |
| Farmer                          | 51 (12.69)       |
| Government employee             | 121 (30.10)      |
| Private employee                | 90 (22.39)       |
| Total                           | 402 (100)        |
| **Mother’s occupation**         |                  |
| Business                        | 5 (1.24)         |
| Farmer                          | 6 (1.49)         |
| Government employee             | 76 (18.91)       |
| Private employee                | 26 (6.47)        |
| House wife                      | 289 (71.89)      |
| Total                           | 402 (100)        |
| **Stressors if any related to** |                  |
| Family                          | 22 (5.47)        |
| Friends                         | 24 (5.97)        |
| Hostel                          | 58 (14.43)       |
| Studies                         | 96 (23.88)       |
| Others                          | 64 (15.92)       |
| Nil                             | 138 (34.33)      |
| Total                           | 402 (100)        |
| **Income per month**            |                  |
| 10,000-50,000                   | 220 (54.73)      |
| 50,001-100,000                  | 144 (35.82)      |
| 100,001-200,000                 | 32 (7.96)        |
| 200,001-500,000                 | 4 (1.00)         |
| >500,000                        | 2 (0.50)         |
| Total                           | 402 (100)        |

**DISCUSSION**

The current study set to assess psychological well-being in 402 medical undergraduates in a tertiary teaching hospital in South India. Low psychological well-being was evident in 50.5% of the medical students. This is similar to a study done in Saudi Arabia where medical students showed high psychological distress indicative of low psychological well-being. Another study exhibited high psychological wellbeing in college students.

Overall, psychological well-being did not significantly differ across most of the socio demographic characteristics inclusive of age and gender. This aspect echoes the findings in a study done in Nigeria where sociodemographic data in comparison with the level of psychological well-being
Table 2: Correlation of clinical variables with psychological well-being in medical undergraduates

| Sociodemographic variables | Low psychological score, n (%) | High psychological score, n (%) | Total, n (%) | $\chi^2$ | P  |
|---------------------------|-------------------------------|-------------------------------|-------------|--------|----|
| Sex                       |                               |                               |             |        |    |
| Female                    | 125 (61.58)                   | 126 (63.32)                   | 251 (62.44) | 0.1298 | 0.719 |
| Male                      | 78 (38.42)                    | 73 (36.68)                    | 151 (37.56) |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |
| Age (years)               |                               |                               |             |        |    |
| <20                       | 116 (57.14)                   | 124 (62.31)                   | 240 (59.70) | 1.4114 | 0.494 |
| 21-22                     | 74 (36.45)                    | 66 (33.17)                    | 140 (34.83) |        |     |
| >23                       | 13 (6.40)                     | 9 (4.52)                      | 22 (5.47)   |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |
| Year of MBBS              |                               |                               |             |        |    |
| 1                         | 66 (32.51)                    | 75 (37.69)                    | 141 (35.07) | 4.4498 | 0.217 |
| 2                         | 49 (24.14)                    | 48 (24.12)                    | 97 (24.13)  |        |     |
| 3                         | 57 (28.08)                    | 39 (19.60)                    | 96 (23.88)  |        |     |
| 4                         | 31 (15.27)                    | 68 (18.59)                    | 96 (16.92)  |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |
| Father’s occupation       |                               |                               |             |        |    |
| Business                  | 81 (39.90)                    | 59 (29.65)                    | 140 (34.83) | 8.8994 | 0.031* |
| Farmer                    | 18 (8.87)                     | 33 (16.58)                    | 51 (12.69)  |        |     |
| Government employee       | 56 (27.59)                    | 65 (32.66)                    | 121 (30.10) |        |     |
| Private employee          | 48 (23.65)                    | 42 (21.11)                    | 90 (22.39)  |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |
| Mother’s occupation       |                               |                               |             |        |    |
| Business                  | 3 (1.48)                      | 2 (1.01)                      | 5 (1.24)    | 2.4086 | 0.121 |
| Farmer                    | 3 (1.48)                      | 3 (1.51)                      | 6 (1.49)    |        |     |
| Government employee       | 33 (16.26)                    | 43 (21.61)                    | 76 (18.91)  |        |     |
| Private employee          | 12 (5.92)                     | 14 (7.04)                     | 26 (6.47)   |        |     |
| House wife                | 152 (74.88)                   | 137 (68.84)                   | 289 (71.89) |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |
| Stressors if any related to |                               |                               |             |        |    |
| Family                    | 12 (5.91)                     | 10 (5.03)                     | 22 (5.47)   | 18.2354 | 0.006* |
| Friends                   | 17 (8.37)                     | 7 (3.52)                      | 24 (5.97)   |        |     |
| Hostel                    | 25 (12.32)                    | 33 (16.58)                    | 58 (14.43)  |        |     |
| Studies                   | 46 (22.66)                    | 50 (25.13)                    | 96 (23.88)  |        |     |
| Others                    | 44 (21.67)                    | 20 (10.05)                    | 64 (15.92)  |        |     |
| Nil                       | 59 (29.06)                    | 79 (39.70)                    | 138 (34.33) |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |
| Income per month          |                               |                               |             |        |    |
| 10,000-50,000             | 107 (52.71)                   | 113 (56.78)                   | 220 (54.73) | 3.1221 | 0.344 |
| 50,001-100,000            | 79 (38.92)                    | 65 (32.66)                    | 144 (35.82) |        |     |
| 100,001-200,000           | 16 (7.88)                     | 16 (8.04)                     | 32 (7.96)   |        |     |
| 200,001-500,000           | 0 (0.00)                      | 3 (1.51)                      | 4 (1.00)    |        |     |
| >500,000                  | 0 (0.00)                      | 2 (1.01)                      | 2 (0.50)    |        |     |
| Total                     | 203 (100.00)                  | 199 (100.00)                  | 402 (100.00) |        |     |

Table 3: Differences in stressors and Self-acceptance subscale

| Socio demographic variables | Low self-acceptance, n (%) | High self-acceptance, n (%) | Total, n (%) | $\chi^2$ | P  |
|-----------------------------|----------------------------|----------------------------|-------------|--------|----|
| Family                      | 9 (4.64)                   | 13 (6.25)                   | 22 (5.47)   | 17.6783 | 0.007* |
| Friends                     | 13 (6.70)                  | 11 (5.92)                   | 24 (5.97)   |        |     |
| Hostel                      | 24 (12.38)                 | 34 (16.58)                  | 58 (14.43)  |        |     |
| Studies                     | 44 (22.68)                 | 52 (25.00)                  | 96 (23.88)  |        |     |
| Nil                         | 59 (30.41)                 | 79 (39.70)                  | 138 (34.33) |        |     |
| Others                      | 45 (23.20)                 | 19 (9.13)                   | 64 (15.92)  |        |     |
| Total                       | 194 (100.00)               | 208 (100.00)                | 402 (100.00) |        |     |
was not statistically significant. However, females scored high on the personal growth subscale from the Ryff’s scale of psychological well-being. This is comparable to a study which observed that females scored higher than males in four of the subscales-personal growth, positive relations with others, purpose in life, and self-acceptance. Women across all age groups consistently scored high on positive growth and positive relations with others, in fact women have greater psychological strength than men at least in certain aspects of the well-being and comparable profiles with regard to other dimensions.

In terms of the impact of parents’ occupation on psychological well-being of the students, the results indicate that there were differences between well-being of students in relation to the occupation of their fathers but mothers’ occupation did not significantly affect their well-being. These findings echo a similar study done in Mysore, India. This study also states that students who had the low family income also showed the low levels of well-being which is in contrast to the current study where no significant relationship was found between the income of parents and student well-being.

The current study emphasized the relationship between stress and psychological well-being. Significant proportion of the medical undergraduates who reported of no stressors also demonstrated high psychological well-being. Furthermore, noteworthy is the finding that these students scored high on environmental mastery, positive relations, and self-acceptance subscales. While another study done in medical students highlights a different conclusion in which though the students exhibited moderate-to-high levels of stress, they also were able to maintain the high level of psychological well-being.

### Table 4: Differences in stressors and positive relations subscale

| Sociodemographic variables | Low-Positive Relations, n (%) | High-Positive Relations, n (%) | Total, n (%) | \( \chi^2 \) | \( P \) |
|---------------------------|-----------------------------|-----------------------------|-------------|--------|--------|
| Family                    | 16 (7.69)                   | 6 (3.09)                    | 22 (5.47)   | 16.7352| 0.010* |
| Friends                   | 16 (7.69)                   | 8 (4.12)                    | 24 (5.97)   |        |        |
| Hostel                    | 29 (13.94)                  | 29 (14.95)                  | 58 (14.43)  |        |        |
| Nil                       | 60 (28.85)                  | 78 (40.21)                  | 138 (34.33) |        |        |
| Studies                   | 45 (21.63)                  | 51 (26.29)                  | 96 (23.88)  |        |        |
| Others                    | 42 (20.19)                  | 22 (11.34)                  | 64 (15.92)  |        |        |
| Total                     | 208 (100.00)                | 194 (100.00)                | 402 (100.00)|        |        |

### Table 5: Differences in stressors and environmental mastery subscale

| Sociodemographic variables | Low environmental mastery score, n (%) | High environmental mastery score, n (%) | Total, n (%) | \( \chi^2 \) | \( P \) |
|---------------------------|----------------------------------------|----------------------------------------|-------------|--------|--------|
| Family                    | 11 (5.12)                              | 11 (5.88)                              | 22 (5.47)   | 14.0100| 0.030* |
| Friends                   | 13 (6.05)                              | 11 (5.88)                              | 24 (5.97)   |        |        |
| Hostel                    | 32 (14.88)                             | 26 (13.90)                             | 58 (14.43)  |        |        |
| Nil                       | 71 (33.02)                             | 67 (35.83)                             | 138 (34.33) |        |        |
| Studies                   | 42 (19.53)                             | 54 (28.88)                             | 96 (23.88)  |        |        |
| Others                    | 46 (21.40)                             | 18 (9.63)                              | 64 (15.92)  |        |        |
| Total                     | 215 (100.00)                           | 187 (100.00)                           | 402 (100.00)|        |        |

### Table 6: Differences in gender and personal growth subscale

| Sex            | Low personal growth score, n (%) | High personal growth score, n (%) | Total, n (%) | \( \chi^2 \) | \( P \) |
|----------------|----------------------------------|-----------------------------------|-------------|--------|--------|
| Female         | 118 (57.56)                      | 133 (67.51)                       | 251 (62.44) | 4.2422| 0.039* |
| Male           | 87 (42.44)                       | 64 (32.49)                        | 151 (37.56) |        |        |
| Total          | 205 (100.00)                     | 197 (100.00)                      | 402 (100.00)|        |        |

### Table 7: Differences in Purpose in life subscale in the year of MBBS

| Year of MBBS | Low purpose in life score, n (%) | High purpose in life score, n (%) | Total, n (%) | \( \chi^2 \) | \( P \) |
|--------------|----------------------------------|-----------------------------------|-------------|--------|--------|
| 1            | 61 (31.77)                       | 80 (38.10)                        | 141 (35.07) | 12.0483| 0.007* |
| 2            | 45 (23.44)                       | 52 (24.76)                        | 97 (24.13)  |        |        |
| 3            | 60 (31.25)                       | 36 (17.14)                        | 96 (23.88)  |        |        |
| 4            | 26 (13.54)                       | 42 (20.00)                        | 68 (16.92)  |        |        |
| Total        | 192 (100.00)                     | 210 (100.00)                      | 402 (100.00)|        |        |
The authors in this study state that in spite of their findings of stress seemingly not affecting the global well-being, it could be short term and to proactively address the issue before the students become distressed and experience low psychological well-being.\cite{r19} Significant finding of the present study is that students who experienced some form of stress during their study tenure reported of low psychological well-being. Interestingly, enough greater proportion of these students reported of academic stress. Based on this finding, it can be stated that students who are less stressed about their academic workload experience better well-being.

Considering the complex information to be learned, the large workload, and the academically stressful and competitive environment of medical school, this finding may not be surprising. Research that can identify the specific academic stressors that affect health and well-being during medical school is recommended. Furthermore, it would be helpful if coping strategies that promote an awareness of academic stress and its consequences be developed and incorporated into medical education and student counseling services. The cross-sectional design limits the capacity to identify causality in relation to psychological well-being. To build on the present findings, the researchers also might consider a longitudinal approach to identify the specific causes of medical student well-being and to ascertain if, and how, well-being changes over time.

**Future directions**

The present study throws the spotlight onto the type of academic environment that medical fraternity should visualize and work toward to facilitate better opportunities for medical students to fulfill their aspirations of finishing their graduation and become competent doctors. Every attempt be made to help the students with their psychological well-being, academic pursuits should incorporate various innovative methods to impart knowledge going beyond the conventional mode of teaching and addressing causes of academic stress by mentoring programs can go a long way in alleviating students fears and anxiety. Appropriate training for future teachers on diverse teaching methods that are less detrimental to student's psychological wellbeing is crucial in providing less stressful academic environment. New curriculum for the medical undergraduates rolled out by the Medical Council of India which is competence based will hopefully bring about the much anticipated change in the levels of academic stress and its effect on the psychological well-being of the students. Higher levels of psychological well-being among students would result in happier students who enjoy their learning process.

**CONCLUSION**

This study concludes that low psychological well-being was evident in most of the medical undergraduates. Students who reported of stress had low psychological well-being, especially academic stress played an important role. Females were better in psychological well-being levels than their male counterparts.

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**Conflicts of interest**

There are no conflicts of interest.

**REFERENCES**

1. Huppert FA. Psychological well-being: Evidence regarding its causes and consequences. Applied Psychol Health Well Being 2009;1:137-64.
2. Deci EL, Ryan RM. Hedonia, eudaimonia, and well-being: An introduction. J Happiness Stud 2008;9:1-11.
3. Seligman ME, Csikszentmihalyi M. Positive psychology. An introduction. Am Psychol 2000;55:5-14.
4. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med 2006;81:354-73.
5. Maheswari K, Kalaiselvan S. Psychological well-being of college students undergraduate research. J Hum Sci 2015;14:6-9.
6. Molina-Garca JJ, Castillo II, Queralt AA. Leisure-time physical activity and psychological well-being in university students. PsycRes 2011;109:453-60.
7. Ryff CD, Keyes CL. The structure of psychological well-being revisited. J Pers Soc Psychol 1995;69:719-27.
8. Fergusson E, James D, Madeley L. Factors associated with success in medical school: Systematic review of the literature. BMJ 2002;324:952-7.
9. Buckley-Sharp MD. Student breakdown. J R Soc Med 1978;71:150-1.
10. El-Masry R, Ghreiz SM, Helal RM. Perceived Stress and Burnout among medical students during the clinical period of their education. Ibnosina J Med Biomed Sci 2013;5:179-88.
11. Ryff CD, Singer BH. Know thyself and become what you are: A eudaimonic approach to psychological well-being. J Happiness Stud 2008;9:13-39.
12. Aboalshamat K, Hou XY, Strod E. Psychological well-being status among medical and dental students in Makkah, Saudi Arabia: A cross-sectional study. Med Teach 2015;37 Suppl 1:S75-81.
13. Chang EC. Perfectionism and dimensions of psychological well-being in a college student sample: A test of a stress-mediation model. J Soc Clin Psychol 2006;25:1001-22.
14. Ogunsemi OO, Afe T, Odupa SA, Oguntola SA, Adeyeye BA. Psychological well being of medical students in a state university, Nigeria. Res J Health Sci 2013;1:190-8.
15. Melissa L, Gitimu PN. Psychological well-being of college students. Undergraduate Res J Hum Sci 2015;14:24-32.
16. Ryff CD. Psychological well-being in adult life. Curr Dir Psychol Sci 1995;4:99-104.
17. Ryff CD, Singer B. Psychological well-being: Meaning, measurement, and implications for psychotherapy research. Psychother Psychosom 1998;65:14-23.
18. Daraei M. Social correlates of psychological well-being among undergraduate students in Myrose city. Soc Indic Res 2013;114:567-90.
19. Durand-Bush N, McNeill K, Harding M, Dobransky J. Investigating stress, psychological well-being, mental health functioning, and self-regulation capacity among university undergraduate students. Can J Cource Psychother 2015;49:253-74.