

Assessment of Acculturative Stress Among Temporary and Permanent Immigrants

R. G. Tonks, S. Bates, F. Lai & A. C. Paranjpe
Simon Fraser University,
Burnaby, B.C.

Abstract

Acculturative stress has been extensively examined in the Canadian multicultural context. John Berry and his colleagues have led the way in this research that has examined various immigrant and indigenous groups for their levels of stress. These and other studies use a common measure, the "Cawte Scale" (Cawte, Bianchi, & Kiloh, 1968), which is a short form derived from the Cornell Medical Index. This self-report measure contains items that assess the respondent's experience of stress in terms of psychological and somatic symptoms. A preliminary study was performed with this measure which involved a comparison of the reports of international and Canadian born students. The results of this study were somewhat inconsistent with others reported by Berry, Kim, Minde & Mok (1987) where the International students did not report significantly higher levels of stress than did the Canadian born students. The present project has expanded on this pilot study by making use of several measures of acculturative stress to assess it among international and Canadian born students. Responses from approximately 50 participants were gathered on the Cawte scale, the Acculturative Scale for International Students (ASIS) (Sandhu & Asrabadi, 1994), and the Bio-Psycho-Social (BPS) Health Index. The BPS measure was designed for this study, and has been based upon a semi-structured interview that is being used in a companion study on identity, youth and adjustment. Global stress scores from each of these measures are compared along with sub-scale scores for somatisation, psychological stress, as well as interpersonal and community factors in the manifestation of stress for these temporary and permanent immigrants.

Introduction & Background

John Berry at Queens University and his colleagues have extensively studied acculturative stress in the Canadian multicultural context. Berry, Kim, Minde, & Mok (1989) have reviewed numerous studies on immigrant and indigenous groups for their levels of stress. These and other studies use a common measure, the "Cawte Scale" (Cawte, Bianchi, & Kiloh, 1968), which is a short form derived from the Cornell Medical Index. This self-report measure contains items that assess the respondent's experience of stress in terms of psychological and somatic symptoms.

A preliminary study was performed with this measure which involved a comparison of the reports of international and Canadian born students (Bates, 1998). The results of this study were somewhat inconsistent with others reported by Berry, Kim, Minde & Mok (1987) where the International students did not report significantly higher levels of stress than did the Canadian born students. Berry et al. report that sojourners typically report higher levels than members of the majority culture whereby they are expected to undergo a number of transformations of daily life that may precipitate psychological or somatic symptoms of stress.

Based upon the results of this pilot study, the present project has set out to assess the assessment tool used to measure acculturative stress among international students and their families. Beyond these inconsistent results, many participants in the pilot study suggested that the measure used (Cawte scale) did not have great face validity. This further spurred interest in developing a self-report measure of acculturative stress that includes a broader definition of stress.

It has been extensively published that health psychology, stemming from psychosomatic medicine makes use of a Bio-Psycho-Social model of health and disease (Berry et al., 1992; Aboud, 1998; Ditto? 1984? Erikson, 1964).

Present Project

The goal of the present project is threefold: i) to develop a measure of acculturative stress using the bio-psycho-social model, ii) to compare several measures of acculturative stress in terms of their overall and component scores, and iii) to assess acculturative among international students and their families. In developing the new questionnaire form (Bio-Psycho-Social Health Index) attention was paid to develop a social measure of stress as well as a measurement of adjustment. Most of these earlier studies have emphasised only the stress side of acculturation. The development of a measure of adjustment also enable the identification and assessment of strategies of adjustment that are employed to combat or alleviate stress that is experienced as part of the acculturative process.

Participants

Responses from 51 participants were gathered from social networks at Simon Fraser University in Burnaby, B. C. Participants were gathered from various sources including: student housing, International Student's Association, the Centre for International Students as well as poster advertisements. The participants averaged 26 years of age, ranging from 18 to 52, with a modal age of 21 years. Of these participants 9 were removed from the sample as they had come to Canada as youth, having lived here for 10 or more years.

Measures Used

Cawte, Bianchi and Kiloh (1968) developed a short form of the Cornell Medical Index (Brodman, Erdmann, Lorge, Gershenson, & Wolff, 1952) which is based primarily on somatic and psychological symptoms. Typically this scale yields a single score ranging from 0-20 with most samples falling in the range of 3-7. In spite of this single score, two sub-scale were derived from this scale, one for somatisation and one of psychological stress. A sub set of the psychological questions also have some social character about them and were subsequently combined to form a 'psycho-social' sub-score.

The Acculturative Scale for International Students (ASIS) (Sandhu & Asrabadi, 1994) was also used to provide a comparison tools that has been used the study stress with International Students. While it is not published with a breakdown of sub-scales, as with the Cawte Scale, sub-scores have been derived for use in the present study. Having respondents provide a rating of 1-5 for each of 36 items there are scores derived that can range from 36-180.

The Bio-Psycho-Social (BPS) Health Index was designed for this study, and is based upon a semi-structured interview that was developed in a companion study on identity, youth and adjustment. This measure contains various questions pertaining to stress and adjustment in the areas of biological, psychological, and social life. It yields sub-scale scores for both stress and adjustment in each of these areas (6-minor scores) and combined stress and adjustment scores as well. Finally a total score can also be derived by subtracting the adjustment score for the stress score. Each item is scored from 1 to 3.

Results

Of the 41 participants in this study there were 24 women and 16 men with an average age was 27.3 years, ranging from 18 to 52. The average length of residence of these participants was 3.76 years while the range was from 6 months to 9 years. The countries or origins range from UK (7) and Hong Kong (10) to China (5), Taiwan (3), and many other places globally from Argentina to Zimbabwe.

Means and Standard deviations for the total and sub-scale scores on the three questionnaires are summarised in Table 1.

Table1: Means and Standard Deviations for scale totals and major sub-scales

Scale	Number	Mean	Standard Deviation
BPS Total	29	1.69	4.58
BPS-Stress	36	31.83	4.54
BPS-Adjust	36	24.60	3.05
Cawte Total	36	3.91	3.53
Somatic	38	1.98	1.98
Psychological	39	0.89	1.41
Psycho-Soc	39	0.97	0.96
ASSIS Total	36	72.69	22.46
Psychological	37	32.59	11.15
Social	41	13.82	5.01
Psycho-Soc	38	25.18	7.69

More detailed analysis is made in consideration of the minor sub-scales of the BPS, as seen in Table 2.

Table 2: Means for minor sub-scales for BPS-HI

Sub-scale	Number	Mean	Standard Deviation
Biol-Stess	40	12.38	1.73
Psyc-Stress	37	6.11	1.76
Soc-Stress	39	13.33	2.07
Biol-Adjust	39	9.15	1.60
Psyc-Adjust	39	2.51	0.51
Soc-Adjust	32	13.06	2.41

Cross correlations were performed in Comparing the Various Measures

Table 3 provides the correlations (& significance levels) among the various scales for the BPS-HI and the Cawte scales.

Table 3: Correlations among sub-scales for Bio-Psycho-Social-HI and Cawte Scales

	Cawte Total	Somatic	Psychological	Psycho-Social
BPS Total r =	.527**	.426*	.460*	.531**
p =	.006	.024	.016	.004
Stress	.705***	.564***	.573***	.573***
	.000	.000	.000	.000
Adjustment	-.149	-.044	.174	.043
	.457	.819	.377	.821
Bio-Stress	.462**	.515**	.331*	.165
	.005	.001	.043	.322
Psycho-Stress	.672***	.486**	.614**	.556**
	.000	.003	.000	.001
Social-Stress	.442**	.315	.348*	.603***
	.008	.057	.035	.000
Bio-Adjust	.705***	-.384*	-.373*	-.492**
	.000	.021	.023	.002
Psycho-Adjust	-.323	-.284	-.232	-.282
	.059	.088	.168	.091
Social-Adjust	.200	.311	.008	.100
	.309	.094	.965	.599

Table 4: Correlations among sub-scales for Bio-Psycho-Social-HI and ASSIS

	ASIS Total	Psychological	Social	Psycho-Social
BPS Total r =	.265	.201	.295	.165
p =	.182	.316	.121	.400
Stress	.377*	.385*	.438**	.366*
	.033	.027	.008	.033
Adjustment	.137	.174	.043	.190
	.487	.377	.821	.325
Bio-Stress	.220	.308	.200	.241
	.204	.068	.217	.150
Psycho-Stress	.302	.272	.346*	.317
	.088	.120	.036	-.63
Social-Stress	.306	.306	.418*	.249
	.079	.074	.008	.143

Bio-Adjust	-.245 .163	-.283 .099	-.145 .380	-.201 .239
Psycho-Adjust	-.221 .209	-.227 .190	-.169 .303	-.295 .081
Social-Adjust	.343 .064	.403* .027	.148 .418	.364* .044

Table 5: Correlations among Age, Age or Arrival & Length of Residence with Stress & Adjustment sub-scale scores for the BPS-HI.

	Stress	Bio-Adjust	Psyc-Adjust	Psyc-Stress	Soc-Stress
Age	-.379* .023	.459** .004	.283 .086	-.337* .044	-.269 .098
Age Arrival	-.352* .035	.437** .006	.339* .037	-.353 .034	-.270 .097
Length of Residence	.027 .875	-.058 .727	-.287 .077	.175 .300	.067 .686

Social Support as indicated by answers to the questions about talking to others (BPS#24-reversed) + BPS#34 / 2 . None of these analyses were statistically significant, as was the case for **Gender**, no significant differences in terms of stress or adjustment. ANOVA yielded no significant differences for gender nor for desire to maintain **Cultural Identity** (BPS#16).

Age was negatively correlated with **Racial stress** ($r=-.376$, $p=.024$). Racial Stress is a sub-score from the BPS-HI which involves the addition of Racial Stress items $RS = (\#20 + \#34) - (\#12 + \#25 + \#26)$.

Beyond the obvious nothing earth shattering has come from this study. It appears that we have indeed developed a revised Cawte Scale which picks up some of the social and psychosocial stress as measured by the ASSIS.

In a companion study we have been looking at Acculturative Attitudes, Ego-Identity Status and Acculturative Stress through a semi-structured interview. In a sample of immigrant youth various trends have been found. As presented earlier this week by Tonks and Pranjpe (2000), the group of immigrant youth and their families most susceptible to acculturative stress appear to be those from so-called "Astronaut" families.

Conclusions and Recommendations

Here, as in the Tonks & Pranjpe (2000) study, it was recommended that more attention ought to be paid to the parents and social support networks that Immigrant youth have for themselves.

References

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Bio-Psycho-Social Health Index

Please indicate your answer with the first letter for each of the following:

Always / Sometimes / Never (E.g., A for Always)

1. _____ Do you enjoy exercising?
2. _____ Do you exercise regularly (2 times a week or more?)
3. _____ Do you eat meals at regular times each day?
4. _____ Are you concerned about eating only healthy foods?
5. _____ Do you have trouble eating (too little or too much?)
6. _____ Do you have problems getting to sleep?
7. _____ Do you feel too tired to get up?
8. _____ Do you feel tired throughout the day?
9. _____ Do you think that you have plenty of energy to go about your daily tasks?
10. _____ Do you suffer from bad headaches?
11. _____ Do you suffer from pain in any part of the body?
12. _____ Do you socialise with people of your own race if given the opportunity?
13. _____ Do you feel shy when meeting new people?
14. _____ Do you feel excluded from social activities?
15. _____ Do you feel alone?
16. _____ Do you feel it is important to maintain your cultural identity?
17. _____ Do you feel happy with the way your life is?
18. _____ Do you ever wish that you could change your appearance?
19. _____ Personality?
20. _____ Race?
21. _____ Do people irritate you and annoy you?
22. _____ Do you get uncomfortable in unfamiliar places?
23. _____ Do you feel depressed more often than not?
24. _____ Do you find it difficult to talk to new people?
25. _____ Do you discuss this feeling with someone of your own race/ethnicity?
26. _____ If you were to choose a best friend would it be someone of your own race?
27. _____ Do you go out with friends on a regular basis to the cinema?
28. _____ to nightclubs or bars?
29. _____ to religious meetings?
30. _____ to other gatherings?
e.g., _____
31. _____ Do you participate in any team sports or activities on a regular basis?
32. _____ Do you get colds/flu on a regular basis?
33. _____ Do you prefer your own company?
34. _____ Do you feel that you are excluded on the basis of race alone?
35. _____ Do you discuss this feeling with someone in order to help you?
36. _____ (If so, what is their relationship to you?)
37. _____ Do you find social activities in Canada different from those you would be participating in at home?
38. _____ Do you ever wish that you were back in your home country?

**Please answer Yes or No to each of the following questions
by circling the appropriate letter. (E.g., for Yes)**

1. Do you have pains in the heart or chest? Y N
2. Do you usually belch a lot after eating? Y N
3. Do you constantly suffer from bad constipation? Y N
4. Do your muscles and joints constantly feel stiff? Y N
5. Is your skin very sensitive or tender? Y N
6. Do you suffer badly from severe headaches? Y N
7. Do you often have spells of severe dizziness? Y N
8. Do you usually get tired and exhausted in the morning? Y N
9. Do you wear yourself out worrying about your health? Y N
10. Do you usually have great difficulty in falling asleep or staying asleep? Y N
11. Do strange people or places make you afraid? Y N
12. Do you wish you always have someone at your side to advise you? Y N
13. Do you usually feel unhappy and depressed? Y N
14. Do you often wish you were dead and away from it all? Y N
15. Does worrying continually get you down? Y N
16. Are you extremely shy or sensitive? Y N
17. Does it make you angry to have anyone tell you what to do? Y N
18. Do people often annoy or irritate you? Y N
19. Do you often shake or tremble? Y N
20. Do you often break out in a cold sweat? Y N

Below are 36 statements, with which you may agree or disagree. Using a scale of 1 - 5 (as below) indicate your agreement with each statement by placing the number on the line preceding that item. Please be open and honest in your responding.

The 5 point scale is: 1=strongly disagree, 3=not sure, 5= strongly agree.

1	2	3	4	5
Strongly Disagree		Not Sure		Strongly Agree

- _____ 1. Homesickness bothers me.
- _____ 2. I feel uncomfortable to adjust to new foods.
- _____ 3. I am treated differently in social situations.
- _____ 4. Others are sarcastic toward my cultural values.
- _____ 5. I feel nervous to communicate in English.
- _____ 6. I feel sad living in unfamiliar surroundings.
- _____ 7. I fear for my personal safety because of my different cultural background.
- _____ 8. I feel intimidated to participate in social activities.
- _____ 9. Others are biased toward me.
- _____ 10. I feel guilty to leave my family and friends behind.
- _____ 11. Many opportunities are denied to me.
- _____ 12. I feel angry that my people are considered inferior here.
- _____ 13. Multiple pressures are placed upon me after migration.
- _____ 14. I feel angry that I receive unequal treatment.
- _____ 15. People show hatred toward me non-verbally.
- _____ 16. It hurts when people don't understand my cultural values.
- _____ 17. I am denied what I deserve.
- _____ 18. I frequently relocate for fear of others .
- _____ 19. I feel low because of my cultural background.
- _____ 20. Others don't appreciate my cultural values.
- _____ 21. I miss the people and country of my origin.
- _____ 22. I feel uncomfortable to adjust to new cultural values.
- _____ 23. I feel that my people are discriminated against.
- _____ 24. People show hatred toward me through actions.
- _____ 25. I feel that my status in this society is low due to my cultural background.
- _____ 26. I am treated differently because of my race.
- _____ 27. I feel insecure here.
- _____ 28. I don't feel a sense of belonging here (community)
- _____ 29. I am treated differently because of my colour.
- _____ 30. I feel sad to consider my people's problems.
- _____ 31. I generally keep a low profile due to fear.
- _____ 32. I feel some people don't associate with me because of my ethnicity.
- _____ 33. People show hatred toward me verbally.
- _____ 34. I feel guilty that I am living a different lifestyle here.
- _____ 35. I feel sad leaving my relatives behind.
- _____ 36. I worry about my future for not being able to decide whether to stay here,
or go back.