Effects of Psychological Distress on Academic Achievement in Brunei Student Teachers: Identification Challenges and Counseling Implications

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Abstract

Students with psychological and mental health problems are often accorded a low status and priority compared to peers with other disabilities. Recent research indicated that a female Brunei student teacher prematurely left her training program due to unaddressed mental health problems. The present study used a mixed methods approach. The random sample consisted of 85 trainee teachers (59 females) out of whom 6 at-risk and vulnerable students (2 males and 4 females) with extreme scores on the psychometric assessments and depressed scores on the academic evaluations were included in the case study. Anxiety was found operating in combination with either extroversion or introversion. While mild extroversion, introversion, and anxiety were not necessarily harmful, excessive amounts of each of these traits could undermine a student's educational and social functioning. Recommendations included encouraging students to undergo voluntary testing, self-referred counseling, and mounting an active mental health promotion campaign and pastoral care program.

Keywords: Mixed-methods design, Psychological distress, Mental health, Academic achievement, Counseling, Student teachers

1. Introduction

Brunei implemented the policies of special and inclusive education more than a decade ago to help exceptional students to cope academically and psychologically in schools (see Ministry of Education, 1997). Special educators and school counselors have been mobilized to assist the country to succeed with these school reforms (Mundia, 2009a; Fitzgerald, 2010). However, more help has been given to students with disabilities other than psychological and mental health. Also more research and assistance has been given to disabled students in special and inclusive schools rather than students in colleges and universities. For example, students with psychological and mental health problems in Brunei tertiary institutions of learning are quite invisible. Despite this invisibility, recent research has indicated that students in Brunei colleges and universities also have both academic and psychological problems that need to be addressed by counselors and psychotherapists (Mundia, 2010a). According to Mundia (2010b) one female trainee teacher was recently forced to abandon her teacher education program due to unresolved mental health problems. The main problem here is that the country at present does not have enough trained and experienced counselors and psychologists to work in educational institutions (Mundia, 2010c). This problem has largely contributed to students' difficulties not being adequately identified by research as well as not being addressed through counseling or psychotherapy. As pointed out above, students with psychological or mental health problems are less visible in Brunei tertiary institutions of learning for a number of reasons such as those discussed by Craig (2010). In the Brunei context, the invisibility of tertiary students with psychological and mental health problems may be attributed to three main factors. First, these students tend not to perform well in achievement tests and most are therefore eliminated at the senior secondary school level by the Brunei examination-oriented system of

education. Second, students with psychological and mental health problems in Brunei colleges and universities may be invisible for fear of exposing their problems due to negative psychiatric labels attached to such problems. Third, unless the problem is severe or profound, Brunei tertiary students with mild and moderate psychological and mental health problems rarely seek professional help from counselors and psychologists on a voluntary basis. In view of these and other problems it is difficult to identify Brunei tertiary students with psychological and mental health problems using simple structured and unstructured observations. It is here (identification problems) where more attention and effort need to be directed to regarding the concerns of these students. Without proper understanding of their problems and with little or no professional help, previous research shows that Brunei tertiary students tend to use a wide range of strategies to cope with distress (Mundia, 2010d).

2. Purpose of the Study

The present study is part of the ongoing efforts to understand the nature and degree of psychological problems in Brunei tertiary students and their effect on academic functioning. The three main objectives of the study were:

• To identify potential psychological problems in Brunei student teachers using instruments not employed by previous research with Brunei student teacher samples.

• To adequately profile students with potential problems and use profiled information as benchmarks for identifying other students in future with similar concerns.

• To suggest ways the identified psychological disturbances may be ameliorated to avoid undermining the student teachers' academic achievement.

3. Method

This is a staged and mixed methods investigation in which two research approaches were used to probe the problem. In the first stage, the study initially started as a field survey. During this phase, two personality questionnaires and two achievement tests were administered to 85 undergraduate pre-service student teachers. The rationale for this part of the study was to obtain quantitative data from many student teachers out of whom a few with significant psychological and academic problems would be identified for inclusion in the present study. In this way, six (6) information-rich cases were recruited for the case study, the second stage of the inquiry. The justification for adopting the case study procedure for the rest of the investigation was two-fold. First, the researcher wanted to make an in-depth analysis and further interpretation of the personality data as well as a detailed functional description of the few selected students. Second, while the results of a case study such as the present inquiry are only explorative rather than confirmatory, the findings may provide useful research questions and hypotheses for further follow-up research studies. The collection of further information from the participants in the present study was beyond the objectives and scope of the study and this necessitates a new investigation. Other limitations of the present study are discussed below. Given these circumstances, the only criterion for inclusion into the present case study was that a student's profiled information appeared to be unusual from that of the majority. This mixed methods research strategy (which required moving from survey to case study) was common in medical and health sciences research where many individuals could volunteer to be screened for an epidemic such as influenza or HIV/AIDS and a few that are found positive with the infection are recruited or quarantined for further observation, testing, and intervention. In addition, the study method prevents the problem from spreading and growing to unmanageable proportions and brings immediate attention to persons with presenting problems.

3.1 Participants

During the academic year in which the data were collected, the researcher taught an education course to 99 student teachers. From these, 85 students (26 males and 59 females) participated in the survey stage of the study. The remaining 14 students were either absent on the day when the instruments were administered or did not provide usable returns. Of these 85 students, 24 were on the BEd program (61 were doing the PGCE). Their age ranged from 18 to 46 (Mean = 24; SD = 4.76). Four of the six case study participants were females. The youngest and the oldest of these six students were aged 18 and 28 respectively (Mean = 24.50; SD = 3.73). All the case study participants were in the first year of their program and each was majoring in a different subject. The biographical data pertaining to the case study participants are presented in Table 1.<Insert Table 1 Here>

3.2 Instruments

Two psychometric personality tests and two achievement tests were used to obtain data for the study. The rationale and justification for using personality and achievement tests to explore psychological distress in student teachers were based on the researcher's assumption that psychological and mental health problems were often implied or

indicated in personality traits. This view seems to be supported by both Sigmund Freud and Carl Jung who believed that excessive extraversion may be a form of a non-catastrophic condition known as hysteria while profound introversion might lead to some type of schizophrenia. In addition, the major personality inventories such as the Symptoms Checklist, SCL-90-R (Derogatis, 1977), the Minnesota Multiphasic Personality Inventory, MMPI-2 (Hathaway & McKinley, 1989), and the NEO Personality Inventory-Revised, NEO-PI-R (Costa & McCrae, 1992) are all used in assessing dysfunctional psychological and psychiatric conditions. Thus schizotypal, neuroticism, psychoticism, as well as obsessive-compulsive (OCD) personality disorders are all forms or signs of underlying psychological distress and mental health problems (see Sarason & Sarason, 1980). Furthermore, previous research (e.g. Anderson, 2005a) shows that different personality traits impact differently on academic achievement.

The personality tests used in the present study during data collection were the 16PF-R (Cattell et al., 1994) and the EPQ-R Short Scale (Eysenck & Eysenck, 1991). The 16PF has 185 items divided into 17 subscales. The subscales measure a wide range of personality attributes listed in Table 2. Each semantic differential subscale has a set of bipolar adjectives describing its meaning. The 16PF was pretested on a trial sample of 41 similar student teachers (7 males and 34 females) five months before the present study. The test-retest reliability coefficients for the 17 subscales ranged from .71 to .93 with a mean of .85. Two experienced university education lecturers were asked to rate independently on a scale of 1-5 (1 Not relevant; 5 Very relevant) the extent to which the 16PF-R contents measured psychological problems relevant to student teachers in the Brunei context. There was a 75% agreement that the scale was suitable for use with Brunei student teachers.

The EPQ-R Short Scale is the shorter version of the full 106-item instrument by the same generic name. It has 48 items divided into four subscales: Psychoticism (P); Extroversion (E); Neuroticism (N); and Lie scale (L). There are 12 items in each of the four subscales. The scales are listed in Table 3. The EPQ-R was also piloted on the same sample used to validate the 16PF-R. The test-retest reliability coefficients were .66 (P), .71 (E), .70 (N), and .77 (L). Two university education lecturers highly experienced in conducting educational research reached an 80% agreement that the variables measured by the EPQ-R were relevant to Brunei student teachers.

Each of the two researcher-constructed multiple-choice objective psychology tests used in this study had 50 items drawn from the test bank of the textbook adopted for teaching the course (Shaffer & Kipp, 2007). The tests were deemed (by two psychology lecturers at the university) to have good content validity because the items adequately covered the contents and skills taught in the course. The split half reliability coefficients for the first and second tests were .78 and .72 respectively.

3.3 Procedure

There are now three public universities in Brunei Darussalam and a fourth, to specialize in technology, may soon come into existence. All the three current universities train teachers of both genders. Teacher education programs in the country have both local and foreign students. However, the nationality, ethnicity, educational institution, and other identifying information of the student teachers in this case study are, for ethical reasons, withheld throughout this article. To further protect the participants' identity, the author's institutional affiliation is also kept anonymous.

Prior to administering the instruments, the researcher verbally explained to the participants the purpose of the study and the ethical conditions or requirements for being involved in the study. This discussion centered on issues of voluntary participation, privacy, anonymity, confidentiality, physical and psychological harm, debriefing, and informed consent. Students were given ample time to reflect on and withdraw from the study if they felt uncomfortable with the research's purpose and objectives. The participants voluntarily agreed to participate in the study. In addition, the participants also permitted the researcher to use the obtained data in other psychological investigations such as case studies. No deception was used. With regard to English language problems, the meanings of difficult English words, sentences and phrases were verbally explained to the participants. Furthermore, students at the participants' university take most courses in English language and have participated in many research studies that required them to complete self-report scales / questionnaires in English. The researcher therefore deemed it not necessary to translate the instruments into Bahasa Melayu (Brunei's mother and official language). The study met the ethical requirements for using human participants in research stipulated by the University of Brunei Darussalam, the Government of Brunei, and the Helsink Declaration.

3.4 Data Analysis

Scoring of data from the 16PF-R followed instructions in the technical manual. Using tables in the technical manual raw scores were converted to sten scores (standard ten scores: Mean = 5.5; SD = 2). Raw scores from the EPQ-R Short Scale were also changed to sten scores. In this way transformed (standard) scores on both instruments were

put on the same scale with the same mean and standard deviation and were directly comparable. Similarly test scores on the two objective tests in educational psychology were also changed to sten scores. The means, standard deviations and rank-order correlations reported in Table 4 are based on sten scores.

4. Results

In the 16PF technical manual, scores of 4 - 7 are regarded as being within the normal or average range of human functioning. Three (3) and eight (8) may be interpreted as mild conditions. Two (2) and nine (9) might be described as moderate conditions. The most extreme scores (1) and ten (10) refer to severe conditions. The results from the 16PF are presented in Table 2. Using the interpretations explained above, extreme scores of concern and interest in this study are indicated by asterisks. <Insert Table 2 Here>

The results from the EPQ-R Short Scale are presented in Table 3. Again, extreme scores of concern and interest in this study are indicated by asterisks.<Insert Table 3 Here>

The relationship between factors measured by the 16PF-R and the EPQ-R and academic achievement tests is presented by rank-order correlations in Table 4. This type of statistic was considered ideal since sten scores were like ranks (ordinal values) and were, in addition, based on a non-random sample (six students in the case study). The mean scores and standard deviations based on the six case study participants are also presented in Table 4.<Insert Table 4 Here> <Insert Table 4 (continued) Here>

Although the two questionnaires measure different personality traits, there are a few factors or subscales that overlap between the instruments. For example, low warmth (Scale A) on the 16PF-R shares much with Scale P (moderate psychoticism) on the EPQ-R Short Scale (see Table 4). From the same table, Factor Q1 (16PF-R) and Factor E (EPQ-R) can be regarded as having considerable common ground. The same can also be said about perfectionism (Factor Q3, 16PF-R) that related positively and significantly with extraversion (Factor E, EPQ-R). Similarly there were also a few factors on both the 16PF-R and EPQ-R that produced inverse but significant inter-scale correlations. These were psychoticism and self-reliance and lying versus self-reliance. A number of factors on the 16PF correlated significantly either positively or negatively (see Table 4). On the other hand, all the factors on the EPQ-R correlated low, positively or negatively, and insignificantly. Only one factor (apprehension) on the two scales (6PF-R and EPQ-R) related positively and significantly with one achievement test (Table 4). Warmth (Factor A, 16PF-R) had potential to predict academic achievement but its relationship with both performance tests failed to reach statistical significance. On average, the six participants scored highest on four personality factors of the 16PF-R and EPQ-R (vigilance, abstractedness, extraversion and apprehension). Of these, only extraversion was from the EPQ-R. The performance of the participants on these four factors was well above the median sten score (5.5). The scores on five subscales and one achievement test had high standard deviations, implying variable responses. All the six participants performed below the median sten score (5.5) on both achievement tests. The participants' average sten scores on the two achievement tests ranged from 3.0 to 7.0 (Mean = 4.6, SD = 1.4). Four of the participants' average sten scores on achievement tests were below the median sten score (5.5).

5. Discussion

Although the focus of the present study is predominantly on the local Brunei context, the results may have international educational implications in that students in other countries (both developing and developed) might have similar psychological distress related to or arising from personality disorders. Furthermore, different countries use different approaches in supporting students with psychological and mental health problems (see Anderson, 2005b; Rickwood, 2005) and it would be beneficial for them to share the similarities and differences.

While participants in the present study looked happy in their daily tasks at the university, evidence from Tables 2-4 indicates that 6 students (7% of the original sample of 85 participants) had significant underlying psychological problems. According to the biographical data in Table 1, the case study participants' age ranged from 18 to 28 (median = 23) and represented both genders (males and females) as well as both teacher education programs (BEd and PGCE). This number of students with severe presenting problems might be higher if the testing were repeated with a bigger and diverse random sample of student teachers. As pointed out above in the introduction, the number of students in Brunei institutions of higher learning known to have psychological problems may be low for several reasons. First, there is still not much research conducted on students' psychological problems in Brunei tertiary institutions (Mundia, 2010a, b, c). Second, the few students identified in various ways to have psychological problems cannot be known because of the information protection laws. Under these laws in Brunei, information about the psychological wellbeing of a student cannot be passed on to other people such as researchers. The only way such information may be made known to few classified recipients is when the student either poises danger to

the self and others, or the information is solicited by a court of law, and when the student is referred to another mental health professional or facility. Third, students who fully know they have psychological problems rarely enter voluntary testing and counseling due to fear of stigma associated with psychiatric mental labels. For ethical reasons, such students cannot be forced to go into counseling or psychotherapy. The present study did not find out whether the identified six cases were receiving professional help as this was outside the scope of the investigation.

5.1 Implications Based on Presenting Problems

The findings from this study have three broad classes of implications to both the local and international community and these are: (1) the need to know more about the nature of the presenting personality characteristics; (2) possible effects of these personality characteristics on learning; and (3) how students with these personality problems could be helped. These issues are briefly discussed separately below, drawing as far as possible, evidence from the present case study participants.

5.2 Presenting Personality Characteristics

From the six students in the case study, this investigation identified three main types of troublesome personality problems (extroversion, introversion, and neuroticism or anxiety) and various combinations of them. These traits have previously been studied extensively and they form the basis for three important and widely used personality questionnaires: 16PF; EPQ-R (Short and Full Scales); and the Myers-Briggs Type Indicator, MBTI (Myers & Briggs, 1990). Also both old and new literature is abundant on these traits (e.g. Fontana, 1986a, b; Bayne, 2003). The data analyses from the present study and literature from these three sources and the above three questionnaires (16PF and EPQ-R) will be used here to briefly discuss and describe further the personality characteristics of the six cases in the study.

5.2.1 Case 1

Assessment outcomes on this student present interpretational challenges. This student teacher was high on both extroversion (Table 2, Scale H) and anxiety (Table 3, Scale N). An extrovert is a person with an outgoing disposition (Bayne, 2003) while an anxious person is an individual who tends to worry a lot even on small things (Fontana, 1986a, b). In the absence of a prolonged interview and observation, the cause of anxiety in Case 1 cannot easily be ascertained. However, her inflated scores on two other factors in Table 2 (vigilance and privacy) suggest a link to social anxiety. People who score high on vigilance tend to be jealous, suspicious and irritable while those high on privacy tend to be cautious and manipulative (Cattell et al., 1994). In addition, this student was also quite low on emotional stability. According to Fontana (1986a) extroverts may seek the company of others mainly to take advantage of releasing their anxiety on them. Case 1 was one of the less able students in psychology as indicated by sten scores on the two achievement tests in Table 3. It is not clear from this study whether this students' poor performance on academic achievement tests was due to psychological distress. However, an excessive desire to be in the company of others most of the time might be disruptive to effective independent study and may promote dependent personality (Mundia, 2009b). Her condition was mild but had potential to worsen in the continued absence of appropriate intervention. This was more so as her consistently low scores on the validity scales for the two inventories (16PF and EPQ-R) could also be interpreted that she was prone to faking good or minimizing her symptoms.

5.2.2 Case 2

Academically this is a more able student as evidenced by her scores on Scale B (Table 2) and on two achievement tests (Table 3). Her main psychological problem is that she is both highly introverted (see depressed score on Scale E, Table 3) and highly anxious (see depressed score on Scale C and inflated score on Scale O, Table 2). People who score high on Scale E (EPQ-R) tend to be very lonely or isolated, quiet, shy, self-examining, and conscientious (Eysenck & Eysenck, 1991). When in trouble or upset they prefer to be solitary to think deeply over the problem. On the other hand, low scorers on Scale C and high scorers on Scale O (16PF) tend to be overly anxious (Cattell et al., 1994) and worry excessively on minor things (Fontana, 1986a). Furthermore Case 2's low score on Scale Q1 (16PF) implies that she might be conservative, traditional and resistant to change. Such people may be difficult and challenging to work with in counseling or psychotherapy settings. However, apart from being academically able, Case 2 has additional strength in that she is not a perfectionist individual who might competently handle anxiety and stress (see low score on Scale Q3, Table 2). The validity of Case 2's scores from the two assessments (16PF and EPQ-R) is however inconsistent and questionable because she scored high on the Impression-Making Scale (Table 2) while she scored low on the L Scale (Table 3). It is quite possible she might have faked-bad or exaggerated her psychological symptoms on the former instrument, whereas she may have faked-good or under-reported her distress

on the latter scale.

5.2.3 Case 3

This student's anxiety was confirmed by three separate scales on the 16PF (C, O, and Q4, see Table 2). Literature suggests that there are two main causes of severe anxiety: biology and environment. It is claimed that people who suffer from this condition might have easily aroused autonomic nervous systems (Fontana, 1986b). Alternatively it is theorized and believed that they may have had inadequate help from people around them (e.g. parents or significant others) during childhood to solve their problems (Fontana, 1986a). In the absence of help, the problems then became internalized and repressed in the unconscious parts of the personality. The real causes are however still unknown. Case 3's performance on three scales of the EPQ-R (P, E, and N, Table 3) was in the normal range of functioning. Despite being a math major, her reasoning was largely still at the concrete level (see low score on Scale B, Table 2). In addition she was In terms of strengths or the positive side, she was high on the abstractedness or imaginative factor (Scale M, Table 2). She scored low on all the validity scales (Tables 2-3) which implies that she was either truthful in whatever she said or faked good. Counseling was recommended for her to address anxiety and academic problems.

5.2.4 Case 4

According to evidence from the EPQ-R (Table 3), this female student's psychological and academic functioning were in the normal range. In addition, her obtained score on Scale B (16PF, Table 2) further confirmed that she was an academically capable person. The problem with this student was her elevated 16PF scores on factors I and O and depressed scores on factors Q1 and Q2 of the same questionnaire (Table 2). Factors I, O, and Q2 suggest (in combination) that she was a highly sensitive, insecure, anxious / depressed, dependent, and attention-seeking individual. Furthermore, she was also a conservative or traditional person who preferred to maintain the status quo (Q1). Though mild, Case 4's psychological problems were too numerous and therefore not easily categorized under the present classification systems (e.g. the Diagnostic Statistical Manual, DSM-IV or the International Classification of Diseases, ICD-10). This may happen when respondents answer questions erratically on the questionnaire but this did not seem to have applied to Case 4 in this study since Case 4's scores on both validity scales for the two psychological instruments were all within the normal range. Case 4's results suggest retesting using other means to obtain a more definite diagnosis that is important for planning treatment.

5.2.5 Case 5

In terms of Scale B (Table 2) as well as the two achievement tests (Table 3), this male was academically functioning within the average range. He however scored too high on Scale E (Table 3) but low on Scale C and Scale H (Table 2). This means that he was highly extroverted (E, Table 3), emotionally unstable (C, Table 2), and socially anxious (H, Table 2). People who score high on factor E (EPQ-R) but score low on factor C (16PF) are inclined to be either disruptive and quarrelsome in the company of others or display excessive emotional dependence (Fontana, 1986a). They may make friendships with many people but the relationships are short-term due to their intolerable behavior. Instability may also be manifested in most of their other roles such as decision-making, marriage, and employment. Although he can be imaginative (see Scale M, Table 2) he fits the classification of unstable extrovert. The low score on Scale L (Table 3) raises concern about the trustworthiness, credibility and dependability of some of his responses. He may be prone to faking good or understating psychological symptoms.

5.2.6 Case 6

Academically, this male student's functioning is in the critical range or far below average according to scores on Scale B (Table 2) and scores on two achievement tests (Table 3). He obtained a perfect score on Scale E (Table 3) suggesting he was highly extroverted. However he could also be jealous, suspicious, skeptical, frustrated, and irritable as indicated by his performance on Scale L (Table 2). In addition, he could be easily manipulated and dependent on others as implied by the high score on Scale Q1 (Table 2). Based on these personality attributes, he may in short, be a difficult person to stay or work with. In general there are two kinds of difficult persons. One type consists of individuals with multiple and complex psychological problems that are intertwined and are difficult to separate or treat. The other type comprises of individuals with a single but major presenting problem which is persistent and resistant to treatment. The latter category is more common than the former. Case 6 suits the description for the former category of difficult people. Examples of persons in the latter category may include the complainants, super agreeables, silents, the quarrelsome, hostile aggressives, unresponsives, know-it-alls, negativists, histrionics, and narcissists. The people in both of the above categories may be difficult to deal with in both teaching and counseling or psychotherapy.

5.3 Teaching and Assessment Implications

The findings from the present study have international implications regarding teaching and assessment in tertiary institutions. A few illustrative examples will be discussed in this section. One of the interventions that could be done in colleges and universities is for instructors and learners to know each others' personality preferences, styles or biases (see Myers & Briggs, 1990). According to Bayne (2003) these personality preferences can be persistent, consistent and enduring. A practical knowledge of these personality styles may be useful in resolving some of the conflicts between instructors and learners that can be harmful to both parties. For example, a student's personality style might match/fit the teaching styles of some instructors but clash with the teaching styles of others (Bayne, 2003). Problems of this nature often arise when instructors and students are not aware of their own personality orientations and therefore do not know what adjustments or accommodations they have to make to each other. For instance, group work (cooperative or collaborative) teaching / learning method may appeal to extrovert students but might be boring and frustrating to introvert students (and vice versa if individual project work is used). On the other hand, heavy reliance on summative evaluations or final examinations as a mode of assessing students may be alright with both extrovert and introvert students but would produce tension, anxiety and stress in most students. The more tests and examinations are used as assessment / evaluation procedures, the more tension, anxiety and stress will be produced in students. Anxious students (who might be both extrovert and introvert) would be quite happy with continuous assessment because such evaluations do not produce much tension, anxiety and stress. In addition, teachers might interact with and give feedback to students largely on the basis of their personality styles. This kind of situation requires the instructor to carefully match the similarities and accommodate the individual differences in students' personality preferences and styles during both instruction and assessment. This cannot be done if the similarities and differences are not known to either party.

5.4 Implications on Counseling Services

Research from elsewhere (e.g. Craig, 2010; Mundia, 2010a) indicates that students might appear to be leading a normal life at the university and yet they are seriously disturbed and need help. It is not easy to identify such students although they might occasionally exhibit a few observable distress symptoms or signs such as frequent absences from class, delays in submitting assignments, missing tests or examinations, and either poor performance or repeated failure (lack of success). One way to solve this problem is to deliberately encourage students to undergo voluntary and confidential psychological testing if they suspect that they might have a serious psychological or mental health problem. This encouragement and advice needs to be given to students in a highly friendly, safe and non-frightening manner such as through mass sensitization or awareness campaign program that may include (but not restricted to) free information pamphlets, video or film shows, sports and games, leisure and relaxation techniques, counseling website, self-help group discussions as well as seminars and workshops on student psychological problems and coping strategies mounted by mental health professionals. In short, the university should have a whole-institution mental health promotion focus or agenda that is cost-effective and highly beneficial to students. The program should target the students' major problems on college and university campuses such as depression, anxiety, stress, procrastination, relationships, unsafe sex that can lead to HIV/AIDS, eating right, obesity, time management, financial management, drugs, alcohol, smoking, gambling, study skills, and exam preparations. However some issues such as sex and alcohol may not be big problems in a devout Muslim country such as Brunei. The voluntary and confidential psychological testing can be done in a private and safe place at the Counseling Unit within the university or at a Psychiatric Unit in a hospital. Services of a Counseling Unit in the university are often underutilized for such purposes. If the testing succeeds in diagnosing effectively the psychological or mental health problem, the client can then be referred for appropriate counseling or psychotherapy intervention. With regard to mental health problems, there are indications that these can be dealt with effectively using programs such as the MindMatters Plus (MM+) initiative in Australia (see Anderson, 2005a, b; Rickwood, 2005; Gillies, 2006). It is important to do this because mental health can directly affect a student's academic work and social life either positively or negatively. The effect (for example on academic work) can be adverse where the student's psychological well-being is defective and dysfunctional. Instituting careful pastoral care pathways in the university would prevent the recurrence of a previous incident when one female student dropped out of the institution of learning because of mental health problems (see Mundia, 2010b). One of the many presenting problems that this student who left the university had was severe anxiety that disabled and inhibited her from doing peer teaching, macro-teaching and teaching practice (all essential components in Brunei teacher education). Effective counseling or psychotherapy could help reduce the wastage rate in Brunei higher education sector.

5.5 Relationship between Psychological Distress and Academic Achievement

Although the inter-scale and inter-test correlations in Table 4 of this exploratory study may not have sufficient statistical power due to the small sample size (N = 6), the findings have high practical significance and have provided useful insights that can be interpreted in a variety of ways depending on the size and direction of the correlations. These correlations also have a number of research-related implications. For instance, the positive and significant inter-scale correlations between the 16PF-R and EPQ-R factors provide evidence that suggests the two scales may be convergent and might have concurrent validity. On the other hand, the inverse but significant inter-scale correlations imply or suggest the scales might be divergent and may have good discriminant validity. The non-significant positive and negative correlations indicated that the factors or scales were not strongly related and were therefore largely measures of different personality attributes. The intra-scale correlations can be interpreted much the same way in terms of validity (convergent and discriminant) and strength of the relationship between the variables. Of these correlations, the most important in this study were those that indicated validity. High convergent validity implies that participants understood the items on the two scales in the same way and the findings are confirmed. Moreover, good discriminant validity provides assurance that there may have been less contamination or confounding between the variables during data collection.

6. Conclusion

In a large student population it might not be easy to identify students with psychological problems through observation alone. Some of the ways students with psycho-educational problems may be identified are through self-referral and voluntary/confidential psychological testing. Through testing, this study identified six students with moderate psychological problems. The cases revealed a wide range of psychological problems which have implications on learning, teaching, and counseling. It is recommended that similar studies be conducted with other student groups using different instruments, observations and interviews to generate more information on student's problems.

7. Limitations of the Study

This study had four main limitations. First, collection of psychological distress data relied mainly on self-report psychometric tests. Although data from such tests may be useful, it might also be heavily contaminated with social desirability bias. While the 16PF-R and EPQ-R have subscales for measuring impression-making and telling lies respectively, the two instruments have no mechanisms for assessing other forms of social desirability such as infrequent and defensive responding (see Hathaway & McKinley, 1989). Second, quantitative evidence of the validity of the 16PF-R and EPQ-R subscales used in data collection was not obtained prior to conducting the study. In the present study, criterion-related validity of the subscales was particularly needed to demonstrate their theoretical relationship with similar subscales such as those in the Symptoms Checklist, SCL-90-R (Derogatis, 1977) and the Minnesota Multiphasic Personality Inventory, MMPI-2 (Hathaway & McKinley, 1989) in the Brunei context. However there is evidence in Table 4 (as described above under discussion) that the subscales had good convergent and discriminant validity. Third, as a case study the results of the present study did not show cause-and-effect relationships of the variables investigated. In addition, the findings had low external validity and could not be generalized to other student teachers in the university because the sample consisted of only two types of student teachers (BEd and PGCE). Other categories of student teachers such those on BA Ed, Dip Ed, Cert Ed and inservice programs were not included in the sample. In view of this the sample had a restricted range in diversity that lowered the variance in responses. Fourth, the six students in the case study were not interviewed after administering psychometric and achievement tests. A post administration briefing meeting with the students was needed to provide feedback information to the participants and probe their performance on the instruments. Qualitative information from the interviews would have helped reveal the extent to which each student's responses in the interview matched, differed from, or added to the data gathered by the survey instruments. In this way the qualitative interview data would have triangulated the quantitative survey data. Despite the above weaknesses, these and other limitations did not, however, adversely affect the results of the study. Furthermore, the findings of the study have important local and international practical educational implications regarding the assessment, identification, and treatment of tertiary students with psychological problems. The findings also form a basis for future large-scale studies.

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Table 1. Demographic characteristics of the case study participants

Variable	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Gender	Female	Female	Female	Female	Male	Male
Age	18	23	25	25	28	28
Program	BEd	PGCE	PGCE	PGCE	PGCE	PGCE
Major	Science	Chemistry	Math	Accounting	CS	LUK

Legend: Bed = Bachelor of Education
PGCE = Postgraduate Certificate in Education
CS = Commercial Studies
LUK = Religious Education

Table 2. 16PF sten scores for six case study participants

	Factor	Case 1	Case 2	Case 3	Case 4	Case 5	Case6
A:	Warmth	4	3	4	5	4	5
B:	Reasoning	4	8*	3*	9*	6	4
C:	Emotional Stability	3*	2*	3*	4	3*	5
E:	Dominance	5	5	3*	7	5	5
F:	Liveliness	7	6	5	4	5	6
G:	Rule-Consciousness	4	5	4	5	5	6
H:	Social Boldness	8*	4	5	6	3*	6
I:	Sensitivity	7	6	5	9*	6	6
L:	Vigilance	8*	7	7	6	6	8*
M:	Abstractedness	7	7	8*	6	8*	7
N:	Privateness	8*	7	5	4	6	6
O:	Apprehension	5	9*	8*	9*	6	4
Q_1:	Openness to Change	5	2*	5	3*	5	8*
Q_2:	Self-Reliance	5	7	6	3*	7	5
Q_3:	Perfectionism	7	3*	4	5	6	7
Q_4:	Tension	4	6	9*	6	7	3
	Impression-Making (percentile Rank)	2*	6*	6*	42	57	83*

* = Critical scores

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Table 3. EPQ-R Short Scale and objective achievement tests' sten scores

Scale/Test	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Psychoticism	6	3	4	6	5	6
Extraversion	8*	2*	6	7	9*	10
Neuroticism	8*	7	7	4	7	5
Lie Scale	3*	2*	2*	5	1*	7
Achievement Test 1	3*	6	5	7	4	4
Achievement Test 2	4	4	3*	7	7	2*

* = Critical scores

Table 4. Intercorrelations of 16PF-R and EPQ-SS-T Factors based on 6 Case Study Participants

		1	2	3	4	5	6	7	8	9
1	Warmth	1								
2	Reasoning	0.04	1							
3	Emotional Stability	0.98**	-0.06	1						
4	Dominance	0.45	0.85*	0.35	1					
5	Liveliness	-0.36	-0.37	-0.25	-0.26	1				
6	Rule-consciousness	0.43	0.42	0.49	0.45	-0.11	1			
7	Social boldness	0.50	-0.19	0.49	0.25	0.37	-0.18	1		
8	Sensitivity	0.39	0.64	0.29	0.89*	-0.03	0.09	0.55	1	
9	Vigilance	0.00	-0.60	0.12	-0.35	0.86*	-0.06	0.60	-0.12	1
10	Abstractedness	-0.43	-0.62	-0.36	-0.82*	0.00	-0.31	-0.59	-0.82*	-0.65
11	Privateness	-0.57	-0.16	-0.49	-0.17	0.92*	-0.15	0.13	0.03	0.60
12	Apprehension	-0.32	0.61	-0.46	0.25	-0.55	-0.15	-0.36	0.12	-0.66
13	Openness to change	0.49	-0.70	0.61	-0.35	0.25	0.16	0.27	-0.29	0.50
14	Self-reliance	-0.81	-0.09	-0.75	-0.52	0.13	-0.04	-0.85*	-0.65	-0.18
15	Perfectionism	0.54	-0.44	0.64	0.00	0.40	0.23	0.48	0.12	0.54
16	Tension	-0.39	-0.08	-0.46	-0.42	-0.61	-0.47	-0.66	-0.49	0.66
17	Psychoticism	0.82*	0.03	0.80	0.53	0.06	0.19	0.77	0.67	0.25
18	Extraversion	0.61	-0.20	0.69	0.16	0.14	0.46	0.23	0.15	0.23
19	Neuroticism	-0.72	-0.46	-0.67	-0.53	0.65	-0.68	0.00	-0.22	0.38
20	Lie scale	0.75	0.02	0.77	0.42	0.14	0.39	0.79	0.46	0.48
21	Achievement Test 1	0.04	0.60	-0.06	0.34	-0.68	0.18	-0.27	0.09	-0.60
22	Achievement Test 2	-0.07	0.73	-0.21	0.60	-0.48	-0.07	-0.28	0.56	-0.80
	Mean	4.17	5.67	3.33	5.00	5.50	4.83	5.33	6.50	7.00
	Standard deviation	0.75	2.42	1.03	1.26	1.04	0.75	1.75	1.37	0.89

* P < .05

** P < .01

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Table 4. (continued)

	10	11	12	13	14	15	16	17	18	19	20	21	22
10	1												
11	0.07	1											
12	-0.25	-0.38	1										
13	0.36	0.03	-0.92**	1									
14	0.71	0.35	0.13	-0.18	1								
15	0.04	0.23	-0.95**	0.89*	-0.35	1							
16	0.62	-0.44	0.52	-0.30	0.49	-0.60	1						
17	-0.52	-0.09	-0.52	0.48	-0.84*	0.73	-0.64	1					
18	0.06	0.05	-0.84*	0.82*	-0.26	0.92**	-0.49	0.69	1				
19	0.49	0.77	-0.24	0.03	0.46	0.06	0.12	-0.29	-0.15	1			
20	-0.73	-0.14	-0.30	0.30	-0.85*	0.45	-0.77	0.73	0.34	-0.52	1		
21	-0.39	-0.64	0.88**	-0.70	-0.09	-0.79	0.35	-0.33	-0.63	-0.64	0.02	1	
22	-0.17	-0.16	0.50	0.56	0.04	-0.34	0.32	0.03	-0.11	-0.06	-0.40	0.28	1
M	7.16	6.00	6.83	4.66	5.50	5.66	5.83	5.00	7.00	6.33	3.33	4.83	4.50
SD	0.75	1.41	2.13	2.06	1.51	1.75	2.13	1.26	2.82	1.50	2.25	1.47	2.07

* $P < .05$

** $P < .01$