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Bicultural Attitudes and Psychological Adjustment of Ethnic Minority Youth in Bangladesh

Abdul Khaleque¹, Muhammad Kamal Uddin², Rumana Aktar³, Kishor Roy⁴, and Md. Nur-E-Alam Siddique⁵

Abstract

This study explored relationships between bicultural attitudes and psychological adjustment of Bangladeshi ethnic-minority youths. The study was conducted on 412 young adults ($M_{age} = 22$ years), 40% women and 60% men, from 18 Bangladeshi ethnic subgroups. The Bicultural Attitude Scale (BAS) and Personality Assessment Questionnaire (PAQ) were used as measures. Results presented that 57% of the respondents were biculturally oriented, 42% were uniculturally oriented (39% were oriented toward heritage culture and only 3% toward national culture), and less than 1% were culturally alienated or marginalized. In addition, the results showed that the mean score of importance ratings was significantly higher for the heritage culture than for the national culture. Results also showed a significant negative correlation between the attitude toward heritage culture and the psychological maladjustment of the respondents. The findings further showed that heritage (not national) culture has significant and unique effects on the psychological adjustment of both male and female minority ethnic youth in Bangladesh.

Keywords: bicultural attitudes, ethnicity, heritage culture, national culture, psychological adjustment

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Biculturalism is a process of acculturation through which individuals of one culture know about other culture(s), change their unicultural identity, and acquire bicultural or multicultural identity due to increasing contact with people of other cultural groups (Berry, 1997, 2006). Earlier scholars viewed biculturalism as a unidirectional process of internalization of new cultural values through communication with persons of the host culture(s) and loss of the old cultural values (culture of origin) and traditions (Gordon, 1964). However, current protagonists of biculturalism view it as a combination of old and new cultural principles in which many aspects of behavior could change, including clothing patterns, food habits, language, and other aspects (Berry, 2005). An important question is whether the acquisition of host cultural values and behavior or the loss of heritage cultural values and behavior is associated with problems in bicultural identity development. Research conducted on minority ethnic populations supports a two-dimensional acculturation model that includes a wide range of participation in both the host and heritage cultures (Berry, 2003; Schwartz et al., 2010). Thus, bicultural identity development can be viewed as a process with many possible mixtures of endorsements of the culture of origin and new host culture (Berry, 2003).

Interaction and communications between people of different cultures and subcultures are increasing quickly due to social changes and the mobility of people countrywide and globally (Nguyen & Benet-Martínez, 2013; Schwartz et al., 2011). Consequently, many people are adopting more than one culture and becoming bicultural or multicultural (Benet-Martínez, 2012). The bicultural and multicultural individuals can be of diverse types, including immigrants, refugees, indigenous people, ethnic minorities, and so forth (Berry, 2006). Biculturalism and acculturation are codependent notions (Berry, 2006). The interplay between the national culture (dominant culture) and heritage culture can result in four possible forms of acculturation processes like as assimilation (unicultural orientation toward the national culture only), separation (unicultural orientation toward the heritage culture only), integration (bicultural orientation toward both the national culture and heritage culture), and marginality (alienation from both heritage culture and national culture) (Berry, 2006). Therefore, biculturalism is an acculturation approach developed through the process of integration, in which individuals embrace both the host culture and their heritage culture of origin and combine the two at the same time (Nguyen & Benet-Martínez, 2013).

Several investigations emphasized the importance of biculturalism and multiculturalism for comprehending developmental issues, including parent-child affairs (Kalia et al., 2022; Khaleque et al., 2021) and behavior development and psychological functioning and well-being among ethnic minorities in the United States and globally (Carlo et al., 2016; Kim et al., 2007). However, the research results on the impacts of acculturation and cultural orientations on psychological well-being have not been sufficiently clear (Balidemaj, 2016; Carlo et al., 2016). Research literature states that the acculturation process is often stressful and may affect individuals' mental health and well-being. For example, there is clear evidence that acculturative stress is related to depression and anxiety (Guevrekian et al., 2020). Additionally, acculturation stress shows a strong negative relationship with

psychological well-being and is associated with mental health outcomes (Hwang & Ting, 2008). Additionally, acculturative stress was found to be directly related to psychological adjustment and distress (Driscoll & Torres, 2013). Moreover, Papazyan et al. (2016) showed that lower levels of acculturative stress revealed greater life satisfaction than higher levels of acculturative stress. Acculturative stress plays a significant role in predicting both depression and anxiety levels, which have a direct effect on individuals' psychological functioning (Guevrekian et al., 2020).

A careful examination of the acculturation literature discloses several inquiries that are yet to be answered and are worthy of further investigation. One question is whether the adolescent's higher level of bicultural identity or the parent's lower level of bicultural identity and a higher level of unicultural identity are most predictive of adolescent problems (Daniel et al., 2012; Suinn, 2010). Several researchers have identified several understudied and unexplained issues in the bicultural identity development of minority ethnic youth and their family members (especially parents), such as (1) a generation gap in cultural orientations (Khaleque et al., 2015; Kibria, 2006; Kim et al., 2007); (2) intergenerational acculturation gaps between parents and offspring may lead to family discord, children's alienation, behavioral and conduct issues, alcohol and substance abuse, maladjustment, and depression (Gonzales et al., 2002; Gonzales et al., 2006); (3) gender differences in cultural orientations (Khaleque et al., 2015); and (4) parent-child relationships (e.g., parental acceptance-rejection), and cultural orientations, and psychological adjustment of children (Khaleque, 2020; Khaleque et al. 2008).

Moreover, the assessment of bicultural alignments appears to be an important issue for understanding the process of combination among diverse ethnocultural groups in any multi-ethnic and multi-racial country with people of many cultures and subcultures who are living together side by side and generation after generation (Khaleque, 2016; Khaleque et al., 2015). Although some investigations have focused on the challenges connected to the acculturation of migrant families, few empirical studies have studied the acculturation experiences of non-migrant ethnic minority groups (Balidemaj, 2016; Kim et al., 2007).

Some researchers have articulated the significance of biculturalism and acculturation processes for understanding socio-cultural developmental difficulty and psychological health-related issues, including anxiety, depression, substance abuse, delinquent behavior, impaired self-esteem, and suicidal tendencies (Benet-Martínez et al., 2006). Although the acculturation process in the immigrant population has recently received a considerable level of attention, and a notable number of studies have been conducted in Western and developed countries (Carlo et al., 2016; Prez-Brena et al., 2018), its consequences on individuals' psychological functioning remain unclear (Nguyen & Benet-Martínez, 2013). Moreover, little research has been conducted on the bicultural difficulties of the native ethnic minority population, especially in developing countries, including Bangladesh (Khaleque, 2020). The following section encompasses a brief portrayal of the minority ethnic population in Bangladesh.

Minority Ethnic Population in Bangladesh

The total population of Bangladesh is about 166.4 million (Worldometer, 2020). Approximately 98 % comprise the major ethnic group (i.e., the Bengali). Ethnically, Bengalis are of Indo-Aryan origin. Approximately 2 % of the population consists of ethnic subgroups, including many tribal subgroups. Major tribal groups include Chakma, Marma, Santal, Garo, and Tripura. Originally, they were from various ethnic communities, including Tibeto-Burman, Sino-Tibetan, and Dravidian races. The southeastern (Chittagong Hill Tracts), northeastern (Sylhet), northwestern (Rajshahi), northern (Dinajpur), and north-central (Mymensingh) regions of the country are their living region (see Figure 1).

Figure 1

The Map of Bangladesh Showing Locations of Different Ethnic Groups and Languages



Note: Adapted from <https://www.showmeneel.blogspot.com>

People of these ethnicities speak different dialects, although most can speak Bangla, the national language of Bangladesh. Each tribal group has its own cultural identity, values, and lifestyle, including language, family and marriage system, food habits, dress patterns, work, income, and employment (see Figures 2 and 3).

Figure 2

Traditional Dress of the Garo Tribal Group



Note: Adapted from <https://www.showmeneel.blogspot.com>

Figure 3

A Chakma Tribal Woman Weaving a Saree



Note. Adapted from <https://www.showmeneel.blogspot.com>

They practice different religions (including Buddhism, Hinduism, Christianity, and animism). As noted above, individuals of almost all the tribal groups included in this research have their own ethnocultural identity consisting of their own language, religious beliefs, music, arts, dress patterns, food habits, family values, and marriage systems, etc., which are different from their national cultural identity consisting of Bengali language, religious beliefs, music, arts, dress patterns, food habits, marriage systems, and so forth (Khaleque, 2016). As tribal children grow, they come into contact with mainstream Bengali culture and learn about it from their ethnic culture (Khaleque et al., 2016). Thus, the minority ethnic population develops a bicultural identity (Partha, 2014).

Present Study

As mentioned before, so far, little or no investigation has been done on the bicultural issues of native ethnic minority populations, particularly in developing countries, including Bangladesh. In this context, the current study was intended to explore the unicultural and bicultural orientations of the minority ethnic youth in Bangladesh and the relationships between their cultural orientations and psychological adjustment. Forming a bicultural identity involves blending the components of two different cultures. According to some scholars (e.g., Friedman, 2012; Khaleque, 2016), the psychosocial development of bicultural persons is molded by integrating two unlike cultures, which is also true for the Bangladeshi tribal sample in this study.

As noted earlier, this is an exploratory study, and for this reason, instead of formulating any hypotheses, the study specifically explored the following research questions:

1. Do the Bangladeshi ethnic minority youth consider their heritage cultural values or national cultural values as the more important part of their lives?
2. Are there any differences between young men and women in affiliation with the different components of heritage and national culture?
3. Is there any difference between the unicultural and bicultural orientations of the youth?
4. Are there significant correlations between bicultural attitudes, gender, and psychological adjustment of the youth?
5. Are there independent effects of the national cultural orientation and the heritage cultural orientation on the psychological adjustment of the youth?

Method

Participants

The participants were 412 youth (60 % men, 40% women) from five major ethnic subgroups (i.e., Chakma, Marma, Garo, Santal, and Tripura) in Bangladesh. The average age of the participants was 22 years, ranging from 18 to 30. Their educational levels varied from

undergraduate (88 %) to graduate (12 %). The participants were recruited from six major public universities in Bangladesh based on convenience, willing consent to participate.

Measures

The following two self-report questionnaires were administered to measure the bicultural attitudes and psychological adjustment of the participants respectively: (1) The Bicultural Attitude Scale for Youth (BAS for Youth), and (2) the Adult version of the Personality Assessment Questionnaire (Adult PAQ) along with a socio-demographic questionnaire.

The Bicultural Attitude Scale for Youth (BAS for Youth)

To measure individuals' cultural orientations, the Bangla version (Uddin et al., 2014) of the 16-item BAS was applied. The BAS was developed (Khaleque, 2006, 2008, 2014) based on the content of focus group discussions on bicultural orientations (Cortés, et al., 1994). The original BAS was devised in 2006 and was revised twice, first in 2011 and then in 2014 (Khaleque, 2011, 2014). The latest version of BAS (Khaleque, 2014, 2016) was used in this study. The first eight items (items 1–8, e.g., How important is it to you to celebrate holidays in of host (Bengali) culture?) assess an individual's orientation toward national culture (or host culture), and the last eight items (items 9–16, e.g., How important is it to you to wear the dress of your heritage culture?) assess an individual's orientation toward ethnic culture or heritage culture. Individuals replied to each item on a 4-point Likert scale ranging from (1) "not at all" to (4) "very much". The total score of the first eight items (1–8) indicates an individual's orientation toward the national or host culture. The sum score of the last eight items (9–16) represents an individual's orientation toward ethnic or heritage culture. The possible scores on the BAS for each cultural orientation (national culture and heritage culture) range from 8–32, with a midpoint of 20. The scale is conceptually designed in such a way that scores at or above the midpoint on the cultural values of the national or host culture (i.e., above the midpoint of the total score on items 1 through 8) indicate unicultural orientation toward the national culture and values at or above the midpoint on the cultural values of the heritage/ ethnic culture (i.e., above the midpoint of the total score on items 9 through 16) designate unicultural orientation toward heritage culture. Conversely, scores at or above the midpoint on the cultural values of both heritage culture and national culture designate bicultural orientation. In contrast, scores below the midpoint on the cultural values of both heritage and national cultures indicate cultural alienation or marginalization. The BAS (Youth) has been translated into five languages (i.e., Bangla, English, Italian, Korean, and Urdu) and has been administered to study the cultural orientations of immigrant or ethnic populations in several countries of Asia, Europe, and North America. Primary evidence about the validity of the BAS derived from an exploratory factor analysis showed two factors (Khaleque, 2008, 2016). Several other works (Khaleque, 2011, 2016; Khaleque et al., 2008; Podio-Guidugli, 2010) indicated that the scale is highly reliable (alpha coefficients vary from .80 to .86) and valid (item factor loading ranged from .62 -.96). In the present study, the alpha coefficient of BAS was .79 for the national culture and .85 for the heritage culture.

The Adult version of the Personality Assessment Questionnaire (Adult PAQ)

The Bangla version (Uddin & Aktar, 2014) of the 42-item adult PAQ was designed to assess adult perceptions of their psychological adjustment/maladjustment (Rohner & Khaleque, 2005; Rohner, 2020). The questionnaire consists of seven subscales (6 items for each) associated with seven personality dispositions: hostility/ aggression, dependency, negative self-esteem, negative self-adequacy, emotional unresponsiveness, emotional instability, and negative worldview). Sample items for each of the seven subscales include: I want to hit something or someone (Hostility/Aggression), I like my friends to show a lot of affection toward me (Dependency), When I meet someone I do not know, I think s/he is better than I am (Negative Self-Esteem), I think I am a failure (Negative Self-Adequacy), I have trouble making and keeping good friends (Emotional unresponsiveness), I am in a bad mood and get angry when I try to do something and I cannot do it (Emotional Instability) and I see the world as a dangerous place (Negative Worldview). The items of the PAQ scale were scored on a 4-point Likert scale ranging from almost always true (4) to almost never true (1). A higher sum score in all seven sub-scales designates lower psychological maladjustment and vice-versa. The sum of scores on the PAQ can range from a low of 42 (indicating high psychological adjustment) to a high of 168 (indicating serious psychological maladjustment). The scale is designed so that scores at or above the midpoint of 105 indicate psychological maladjustment and any score below the midpoint reveals psychological adjustment. Rigorous evidence reported by Rohner and Khaleque (2005) shows the robust reliability and validity of the Adult PAQ for use in cross-cultural research. Several evidences show that the coefficient alpha for the PAQ ranges from .81 to .91 (Khaleque & Ali, 2017; Rohner & Khaleque, 2005). In the present study, the alpha coefficient of PAQ was .84.

Socio-demographic Questionnaire

All participants answered a socio-demographic questionnaire that elicited information regarding age, sex, ethnicity, marital status, socio-economic status, etc.

Procedure

Prior to the beginning of the data collection, approvals were obtained from the participants and their institutions. The study was conducted following the Helsinki Declaration. For the present study, we approached the university students in their classrooms. To include any students as participants, we recruited those who were from any tribal groups of Bangladesh (to measure bicultural attitude), as they have their own ethnocultural identity, including food habits, dress patterns, languages, cultural values, etc., and they come in interaction with the mainstream Bengali (national) culture. Before surveying, we presented an explanatory note describing the purposes of the study, including the ethical details and an informed consent form. Participants were informed that the data would be firmly confidential and only used for scientific analyses, combining data from all participants without specifying any individuals. Only participants who met inclusion criteria and provided written informed consent could participate in the study. We administered the survey questionnaires to the

participants in their classes with the approval of the concerned teachers. All measures were administered to the respondents in paper-pencil form. Participants were thanked, and token gifts were provided after finishing participation. Those who did not specify their tribal ethnicity in the socio-demographic form were excluded from the data set.

Data Analyses

As the present study was designed to explore unicultural and bicultural orientations of the minority ethnic youth (also considering gender) in Bangladesh, the number of participants (i.e., frequency), descriptive statistics in terms of cultural orientations (national and heritage culture), and different components of national and heritage culture were calculated. We also computed a t-test to find if there are gender differences in the different components of measuring cultural orientations, including overall heritage culture and national culture. Furthermore, as the study was designed to investigate the relationships between cultural orientations and psychological adjustment of Bangladeshi ethnic minority youths, intercorrelations between these variables were examined. Multiple regression analysis examined the independent contributions of the national and heritage cultural orientations on psychological adjustment. Statistical analyses were executed using IBM SPSS Statistics.

Results

Results in Table 1 show that a significantly greater number of the ethnic minority youth, regardless of gender, considered their heritage cultural values a more important part of their lives than the national cultural values. A detailed description of the table revealed that most of the youth considered some components of the heritage cultural values, such as speaking in the language of their heritage culture, wearing the traditional dresses of the heritage culture, celebrating holidays in the ways of the heritage culture, growing up with values of heritage culture, and marrying someone belonging to their heritage culture more important than that of the national cultural values. Similarly, they enjoy eating food and listening to music from their heritage culture more than the national culture.

Table 1
Cultural Orientations of the Bangladeshi Ethnic-Minority Youths

Cultural orientations	n	%	χ^2
Bicultural orientation	236	57%	
Unicultural orientation (toward heritage culture)	162	39%	
Unicultural orientation (toward national culture)	13	3%	385.18***
Culturally marginal or isolate	1	0.24%	

Note. **p<.01, ***p<.001

Table 1 also demonstrates that the largest number of young adults (57%) tended to be biculturally oriented. The second largest number of them were uniciculturally oriented toward the heritage culture, a smaller number of them (only 3%) were uniciculturally oriented toward the national culture, and less than one percent of them were culturally alienated or

marginal. These differences are statistically significant.

Table 2 shows that compared to young men, a significantly greater proportion of the ethnic minority young women expressed stronger affiliations with different components of their heritage culture, such as cultural identity, food, dress, language, and marriage. In contrast, a significantly greater proportion of the ethnic minority young men expressed stronger orientations with some components of the national culture, such as cultural values, language, dress, and marriage, than the young women.

Table 2
Contingency Table for Response Options According to Gender (N = 412)

Items	Gender	Response Options				Contingency Coefficient
		Not at All	A Little	Some what	Very Much	
1 How much are the values of the national culture a part of your life?	F	15	88	48	15	.158*
	M	44	101	67	34	
2 How important is it to you to celebrate holidays in the ways people do nationally?	F	4	18	78	66	.072
	M	5	33	99	109	
3 How important is it to you to grow up with values of the national culture?	F	21	76	50	19	.117
	M	52	96	66	32	
4 How important is it to you to speak in the national language of your country?	F	4	28	96	38	.140*
	M	7	58	107	74	
5 How important is it to you to wear the dresses of the national culture?	F	20	88	47	11	.157*
	M	54	104	61	27	
6 How much do you enjoy eating the foods of the main stream population of your country?	F	8	61	68	29	.061
	M	14	98	86	48	
7 How much do you enjoy the music of the national culture?	F	5	38	75	48	.119
	M	12	77	105	52	
8 How important is it to you to marry someone belonging to the national culture?	F	130	22	6	8	.240***
	M	138	44	31	33	
9 How much are the values of your ethnic heritage culture a part of your life?	F	5	8	24	129	.058
	M	5	15	43	183	
10 How important is it to you to celebrate holidays in the ways of your ethnic/heritage culture?	F	4	2	16	144	.143*
	M	0	9	29	208	

11	How important is it to you to grow up with the values of your ethnic/heritage culture?	F	4	2	17	143	
		M	1	9	45	191	.159*
12	How important is it to you to speak in the language of your ethnic/heritage culture?	F	5	5	13	143	
		M	1	13	37	195	.158*
13	How important is it to you to wear dresses that match your ethnic/heritage culture?	F	5	5	26	130	
		M	4	33	59	150	.216***
14	How much do you enjoy eating foods of your ethnic/heritage culture?	F	2	4	22	138	
		M	0	18	40	188	.143*
15	How much do you enjoy the music of your ethnic/heritage culture?	F	3	9	53	101	
		M	7	28	70	141	.109
16	How important is it to you to marry someone belonging to your ethnic heritage culture?	F	2	5	16	143	
		M	4	10	29	203	.049
		M	4	10	29	203	

Note. F= Female, M= Male; * p<.05, ***p<.001.

Results in Table 3 present the mean difference between the ratings of the importance of the national culture and heritage cultures' importance. The table revealed that the mean importance score is significantly higher for the heritage culture than for the national culture. The results also revealed that young women and men considered their heritage cultural values as a more important part of their lives compared to the national cultural values.

Table 3
Mean Difference Between Ratings of Perceived Importance of the National Cultural Values and the Heritage Cultural Values

	n	M	SD	t
National culture	412	20.47	4.36	28.57***
Heritage culture	412	29.46	3.57	

Note. ***p < .001

However, Table 4 showed that young women expressed their feelings of the heritage culture's importance more strongly than young men. Moreover, as shown in Table 2, young women considered some components of heritage culture more important than young men.

Table 4

Mean Differences Between the Ratings of Importance of the Heritage Culture and the National Culture of the Minority Youngs According to Gender

	Gender	<i>n</i> (412)	<i>M</i>	<i>SD</i>	<i>t</i>	Cohen's d
Heritage culture	Women	166	29.85	3.75	1.81***	.18
	Men	246	29.20	3.54		
National culture	Women	166	20.39	3.72	.31	.03
	Men	246	20.53	4.71		

Note. ***p<.001.

Results in Table 5 show a significant correlation between youth's involvement with the heritage and national cultures. As the majority (57%) of the youth are biculturally orientated, so they are likely to have significant involvement with both cultures. However, the results showed a significant correlation between psychological adjustment and heritage cultural orientation. However, the correlation between national cultural orientation and psychological adjustment was not significant. Similarly, gender has no significant correlation with psychological adjustment.

Table 5

Correlations between Attitudes Toward Heritage Culture, National Culture, and Psychological Adjustment of the Respondents

	Gender	National	Heritage	PAQ
Gender	—	.016	-.089	-.075
National		—	-.30***	-.02
Heritage			—	-.149**
PAQ				—

Note. PAQ = Personality Assessment Questionnaire.

p <.01. *p <.001.

To see the independent impacts of the national cultural orientation and the heritage cultural orientation on the psychological adjustment of both the young men and the women, hierarchical multiple regressions were conducted with culture orientations and gender as predictive variables and psychological adjustment as the outcome variable. Table 6 shows that only heritage cultural orientation made a significant independent contribution to the psychological adjustment of respondents. The national cultural orientation and the respondents' gender made no significant salient contributions to the psychological adjustment of the respondents.

Table 6

Multiple Regression Analyses of Heritage Culture, National Culture, and Gender as Predictors of Psychological Adjustment of the Bangladeshi Ethnic Youths

Variable	B	SE B	β	R ²	ΔR^2
Model 1 (Constant)	108.50	5.48			
Heritage culture	.56	.18	.15**	.02	.02
Excluded variables					
National culture			.07		
Gender			.09		

Note. **p <.01

Table 6 also shows that after controlling for the effect of national cultural orientation and gender, the heritage cultural orientation alone explains about 2% of the variability in the psychological adjustment of young men and women.

Discussion

The findings of this study reveal that a significantly greater number of Bangladeshi ethnic youth are inclined to be biculturally oriented, although both the young men and women consider their ethnic cultural values to be more essential in their lives than the national cultural values, and the ethnic women have a stronger feeling about heritage culture than their men counterpart. Thus, the results direct a tendency of young men and women, especially young men, to adapt, accommodate, and adjust to the national culture and their heritage culture. The conclusions seem to confirm the acculturation literature, which shows that, generally, young people tend to acculturate rapidly with the host or national culture (Gil et al., 1994; Szapocznik et al., 1990). Acculturation literature suggests that a vital element of healthy intergroup affairs is the positive attitudes of the majority and the minority ethnic groups toward each other's cultures. A positive attitude implies a blending of a positive view of the cultural preservation of ethnic groups and an appreciation of the need to accommodate diversity equitably (Berry, 2001; Citrin et al., 1997). Research findings show that biculturalism or multiculturism in a society dramatically influences the acculturation process and cultural adaptation of ethnic minority and majority societies (Arends-Tóth & Van de Vijver, 2003)

The findings of this research show that compared to young men, a significantly greater proportion of young women have stronger affiliations to different components of their heritage culture, including food, dress, language, and marriage with someone belonging to their heritage culture. On the contrary, a significantly greater proportion of young men than women have stronger affiliations to some components of the national culture, including national language, dress, and marriage with someone from other cultures. The

findings of this study are in line with that of several other studies, which showed that women are generally inclined to be more uniciculturally oriented toward their ethnic culture, and men tend to be more biculturally oriented toward both the ethnic and the national cultures (Khaleque et al., 2015, 2016). In all likelihood, one primary reason for this gender difference lies in the fact that women tend to be less exposed to affiliates of other ethnic groups than men. Unlike minority ethnic groups, men are likely to be more exposed to other cultures because most of them work outside the home and have more social and cultural interactions with people from different cultures.

Additionally, the findings display that heritage cultural orientation (not national cultural orientation) has a significant independent effect on the psychological functioning of Bangladeshi ethnic youth, regardless of gender. It may be noted here that in the present study, the response patterns of young men and women on different components of bicultural attitudes were analyzed mainly to understand how gender differences in cultural orientations are related to the psychological adjustment of young men and women. Whereas, in another study, the response patterns of young men and women on different components of bicultural attitudes were analyzed mainly to understand how gender differences in cultural orientations are related to paternal and maternal acceptance-rejection., and the findings revealed that perceived parental acceptance has a stronger relationship with the heritage culture than perceived maternal acceptance of the youth (Khaleque et al., 2021).

Confirmatory evidence of strong relationships between psychological well-being, heritage culture, and traditional family orientations (Cauce & Domenech- Rodriguez, 2002; Priest et al., 2016). The primary reason for the unique effect of heritage cultural orientation on psychological adjustment is that individuals with a favorable attitude toward their ethnic culture are likely to receive familial support to integrate the heritage culture values with the national cultural values (Perez-Brena et al., 2018). They try to make better adjustments in a bicultural or multicultural environment, especially when the family environment highlights the ethnic-racial socialization of the members (Nguyen et al., 2015). The family often plays an important role in fostering cultural transition, intercultural integration, social values, and psychological well-being of its members, especially its young members, by providing support (Stuart et al., 2010). In addition, adaptive culture in the family often aids as a buffer or risk absorber for youth by providing emotional care in intercultural conflict and adjustment (Dunbar et al., 2015; Priest et al., 2016).

Another likely reason for the unique effect of heritage cultural orientation on the psychological adjustment of the youth is that they consider their heritage cultural values to be an integral part of their identity. According to Erikson (1982), identity development is critical during adolescence and young adulthood. The question "Who am I?" becomes central during young adulthood. Erikson viewed adolescence and emerging adulthood as a critical period of life because of significant physical, psychological, and social changes. During this stage of life, emerging adults try to form a clear view of self-concept and identity and make decisions about education, career paths, and life-partner selection. Despite different

views about the onset of self-concept and identity development, researchers agree that a person's self-concept and identity tremendously influence his/her behavior, self-esteem, social skill development, and psychological adjustment (Khaleque, 2018; Marsh & Martin, 2011).

Limitations and Strength

Although this investigation is based on a reasonably large sample and provides valuable information about cultural orientations and psychological adjustment of Bangladeshi ethnic minority youth, the study is not free from certain limitations, such as the sample sizes from some ethnic groups were few to make statistically meaningful inter-ethnic comparisons. Moreover, the study is based on convenience samples. Convenience sampling is a non-probability sampling technique where respondents are selected because of their accessibility and proximity to researchers. The most obvious criticism about convenience sampling is that the sample is not representative of the target population and has limited generalizability to infer about the target population. Nevertheless, convenience sampling is one of the most frequently used and common techniques. Researchers prefer this sampling technique because it is readily available, fast, and inexpensive (Jager et al., 2017). Although convenience samples have less clear generalizability because of questionable representation of the target population than probability samples, researchers argue that the representativeness and generalizability of convenience samples can be improved by increasing the homogeneity and the size of convenience samples (Suen et al., 2014). The present study used convenience samples from a homogenous population (i. e., the minority ethnic population in Bangladesh), and the sample size was quite large (i. e., $n=412$). In addition, since it was a cross-sectional study, it was impossible to know how acculturation patterns change over individuals' lifespans. About 94% of social surveys are cross-sectional, mainly because they take less time and money to complete a research project than longitudinal research. However, researchers (Jap & Anderson, 2004) have been increasingly concerned about the validity of cross-sectional research for mainly two reasons: (1) common method variance(CMV) (i.e., systematic method error due to the use of a single rater or single source), and (2) lack of causal inference (CI) (i.e., inability to infer causation from observed empirical relations). Thus, conducting longitudinal studies as a means of reducing CMV and enhancing CI would appear to be a worthy alternative. However, an extensive review of the literature (Rindfuss et al., 2008) indicates that this solution is also not perfect because of some potential problems of longitudinal studies, such as confounding findings due to intervening events during extended periods of data collection and reduction in sample size due to respondent attrition. Therefore, a well-designed cross-sectional study may be an adequate substitute for longitudinal data collection (Rindfuss et al., 2008). In addition, in an exploratory study, researchers generally start with a cross-sectional design to determine whether there are links or associations between certain variables. Then, they would set up a longitudinal study to discover the directions of relationships that lead to establishing cause and effect relationships (Putnick et al., 2014; Rindfuss et al., 2008).

Implications and Future Research

Despite these limitations, we think the present findings provide valuable information about the cultural orientation patterns and the psychological adjustment of the ethnic minority youth in Bangladesh. Acculturation researchers have found an association between bicultural identity and adolescent externalizing problem behaviors, such as delinquency and conduct problems (Smokowski et al., 2008). Acculturation gaps between parents and children can cause family conflict, increasing the likelihood that youth will indulge in externalizing problem behaviors (Khaleque et al., 2015; Mogro-Wilson, 2008). A disturbing concern to researchers and clinicians is the empirical findings that high levels of acculturation often result in the development of severe behavior problems and drug abuse in adolescents (Tonin et al., 2008).

Several researchers have identified some specific factors connected with acculturation processes that significantly mediate the emergence of behavior problems in minority ethnic youth (Driscoll & Torres, 2013). Two important mediators, among others, are family (Gonzales et al., 2006) and specific parenting practices (Allen et al., 2008; Khaleque et al., 2021). Literature on minority ethnic families suggests that preference for “familism” based on the emphasis on the importance of the family over autonomy and individualism (Comas-Díaz, 2006) often works as a protective factor against the development of behavior problems (Driscoll & Torres, 2020). Further, the literature on adolescents’ behavior problems has also revealed that parenting practices, such as weak monitoring and low parental control, often lead to the emergence of externalizing and other delinquent behavior (Wagner et al., 2010). Research literature also shows that cultural beliefs and values about parenting practices can vary between different cultural traditions (Domenech Rodríguez et al., 2009).

These findings shed light on the central role of family processes and parenting practices in the context of bicultural identity and behavioral development of minority ethnic youth (Gonzales et al., 2006). Moreover, these findings have important scientific and clinical implications for indicating that any effective intervention strategy and the next generation of counselors’ training programs to handle the behavioral problems of ethnic minority youth should take into account their family processes and parenting practices in the context of their acculturation processes (Shriver & Allen, 2008; Khaleque et al., 2021). The current study was cross-sectional research, so it was impossible to know how acculturation patterns change over individuals’ lifespans. Therefore, future research with longitudinal design seems necessary to better understand the influences of family and parenting processes on changes in cultural orientation forms of ethnic minority youth over their lifespan.

Compliance with Ethical Standards

Ethical Approval

All procedures were performed for data collection of this study in accordance with the ethical standards of the respective universities' institutional review committees and with the 1964 Helsinki Declaration and its later amendments.

Informed Consent

Informed consent was obtained from all participants included in this study.

Conflict of Interest

The authors declare no competing interests.

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Need for School Psychology Services in Bangladesh: Perspectives and Challenges

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Abstract

Bangladesh has experienced rapid economic growth and significant progress in expanding access to education over the past two decades. However, comprehensive programs that address the psychological and academic needs of children remain largely absent. The country faces a shortage of qualified professionals to manage students' behavioral, emotional, social, and learning difficulties. School psychology is still in its nascent stage and has yet to be recognized as an independent discipline. This study aims to explore the perspectives of key stakeholders, including educators, psychologists, policymakers, parents, and students, on the importance of school psychology services. To gather insights, we conducted focus group discussions, interviews, and personal communications, alongside a review of relevant literature. The results show widespread agreement on the necessity of school psychology services to support mental health, address learning challenges, and promote overall students well-being. At the same time, significant challenges were identified, such as the scarcity of trained professionals, limited resources, lack of awareness, and cultural stigma surrounding mental health issues. The study concludes by emphasizing the urgent need for policy support and capacity-building initiatives to overcome these barriers and ensure the successful implementation of school psychology services in Bangladesh. This paper underscores the critical role of school psychologists in enhancing both academic and mental health outcomes for millions of children across the country.

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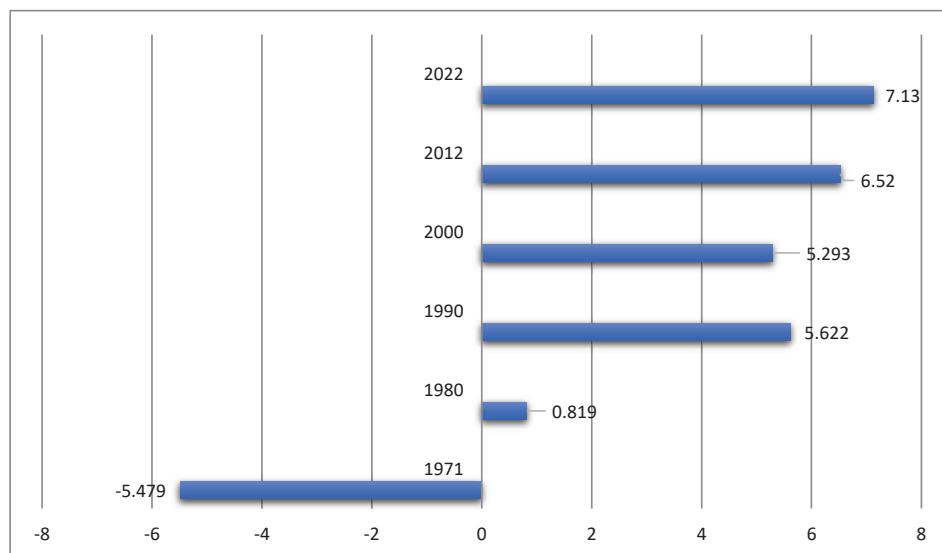
Keywords: Bangladesh, education, school psychology, child mental health, challenges

Need for School Psychology Services in Bangladesh: Perspectives and Challenges

Bangladesh is a rapidly growing nation among South Asian countries. Its economic conditions are largely positive with robust and stable growth in Gross Domestic Product (World Economic Situations and Prospects, United Nations, 2019). In recent years Bangladesh has demonstrated much progress and surpassed her neighboring South Asian countries and many developing countries in achieving Millennium Development Goals, specially the MDG-4 and MDG-5 (Islam & Biswas, 2014). The World Bank Data (2020) revealed that Bangladesh's GDP is gradually increasing in every five years and it is a clear indication of a stable macro economy.

Figure 1

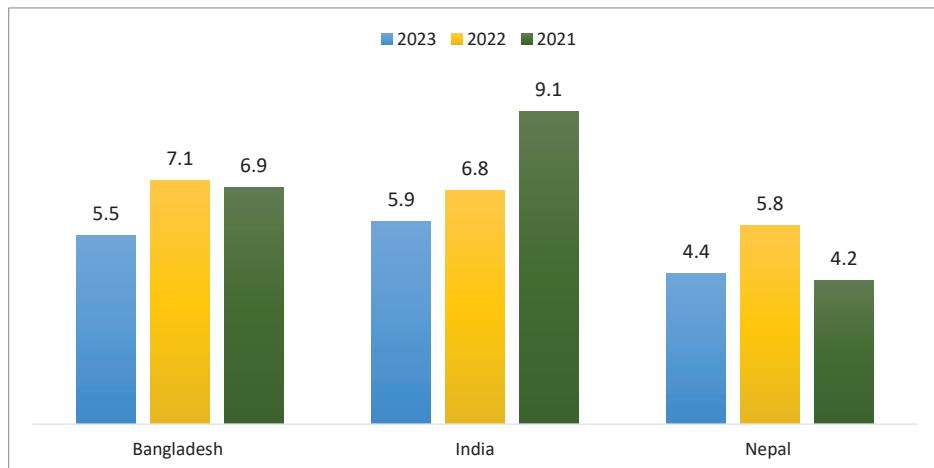
GDP Growth Rate in Bangladesh since 1971-2024 (Source: World Bank, 2024)



From Figure 1, we can observe that GDP growth rate in Bangladesh was -5.479%, 0.819%, 5.622%, 5.293% and 6.52% for the years of 1971, 1980, 1990, 2000 and 2012. But the rate was too high in 2022 (7.13%). These increasing rates of GDP indicates that Bangladesh is in a sound fiscal position. Moreover, its GPD's annual changes are more stable (World Bank, 2024). In this rapid growth of GDP and economic upswing, women's contribution has played a vital role. Bangladesh has significantly outperformed its South Asian peers in promoting women's empowerment, as evident by its ranking of 50th in the world rankings of nations (World Economic Forum, 2020).

Figure 2

Bangladesh, India and Nepal: GDP Rate of Three South Asian Countries (Source: World Bank, 2023)



Since 2009 Bangladesh Govt. has been made gender responsive budget for promotions of women participation in all spheres of life and social development. Female unemployment rate has decreased to 7.00% in 2022 from 7.6% in 2013 (World Bank, 2024). It is commonly observed that women are now employed in various fields that were once thought to be dominated by men, including business, hospitality, safeguarding, construction, agricultural enterprises, law enforcement, cadet programs for the Marine and Air Force, administration, and migration. Despite numerous government and non-governmental organization initiatives, there are still significant financial gaps that women must overcome. Millions of Bangladeshi women work in the lucrative ready-made garment industry, the country's largest export sector and an increasing number of women own small and medium-sized businesses (Alam, 2019).

Bangladesh's economy is expanding at an exponential rate, which impacts the nation's health care and educational systems as well (Siddique et al., 2018). The entire health system has been restructured as part of the Health and Population Sector Program (HPSP) (1998-2003) to better meet the requirements of the populace. The program's objective was to increase the use of health, population, and family welfare services by implementing a client-centered strategy that aimed to enhance the health and welfare status of the most vulnerable populations, including women, children, and the impoverished. The Bangladeshi government made a significant effort, and as a result, the publicly-funded health system's organizational structure and service delivery model experienced significant modifications. The most current reports of Bangladesh Sample Vital Statistics, 2022 (Bangladesh Bureau of Statistics, Statistics and Informatics division & Ministry of Planning, 2023) allow us to observe the significant changes in the health system.

Over the past ten years, Bangladesh has experienced significant changes in its educational landscape as a result of globalization's aftereffects and the rise in academics' international mobility. The "National Education Policy," which guarantees equal rights to education and human development overall, was established by the government of Bangladesh in 2010. Nearly 19 million students nationwide receive their elementary education in 126,615 primary schools, according to the Directorate of Elementary Education [DPE] (2016). The percentage of people aged 7 and older who were literate rose from 52.1 percent in 2005 to 73.2 percent in 2018, a change of over 40 percent in just 14 years.

Teachers receive training from a variety of institutions at varying levels. Based on data from the Bangladesh Bureau of Educational Information and Statistics (2022), 67 PTIs provide a one-year certificate program for elementary school teachers. For those interested in becoming secondary school teachers, 104 different Teachers' Training Colleges (TTC) provide one-year Bachelor of Education (BEd) and one-year Master of Education (MEd) programs. On top of that, there are five HSTTIs that offer continuing education for high school educators (Sheik, 2017). Technical and vocational schools, as well as madrasahs, are the only recipients of training from certain institutions. Thirty colleges provide degrees in physical education that can be used to become PE teachers. Formal teacher training is still not widely used, though (Chowdhury & Farooqui, 2011).

When we are talking about infrastructural development, increased literacy rate, a large number of enrollment and participation in educational institutions, still there is an absence of child-friendly atmospheres (Chowdhury & Sarker, 2018). Despite the rules and policies that mandate physical activities including indoor and outdoor games and cultural activities, most school authorities and parents do not prioritize them. School administrators aren't keen on letting students participate in fun physical activities like games and sports on campus since they don't count toward students' final grades. Parents' worries about their children's safety, exhaustion, and injuries made it harder for them to participate in extracurricular activities. (Hasan et al., 2020). This dearth of physical activities makes children addicted to screens. According to UNICEF (2020), 32% of children between 10 and 17 ages are vulnerable to online violence, cyberbullying, cybercrime and cyber harassment. The reports also warn that victims of cyber bullying are at increased risk for substance abuse, low self-esteem, poor academic performance, and health issues. Moreover, suicide has been a result of cyber bullying in certain tragic cases.

Teachers in educational institutions are poorly trained and uninterested in learning science, human psychology, and communication. In research carried out, it was found that most teachers at the primary level were underqualified, and mostly secondary school graduates with third divisions (Rabby, 2008). Students are burdened with lessons and examinations (Chandan, 2019). Both the students and teachers face difficulties with overcrowded classroom settings. The international benchmark of teacher-student ratio for secondary school is 1:30, and Bangladesh has been experiencing a decline in this regard lately. One teacher was present for every forty-one students in 2016, up from thirty in 2011,

according to the draft of Bangladesh Education Statistics—2016. With only one educator for every one hundred and thirty-three pupils, the situation is much direr at public high schools (Anam, 2017). Overcrowded classrooms make learning difficult for students and make it harder for teachers to devote individual attention to each. There will be more strain on the school's common areas, restrooms, and playgrounds, which impacts the learning environment as a whole (Stifan, 2019).

Children are getting inadequate or poor-quality parental time as they both are working outside. If we look the data of Labor Force Surveys (LFS) of Bangladesh Bureau of Statistics (BBS) from 1999-2000 to 2016-2017, we will find that the numbers of workers have rapidly increased for both male and females. In 1999-2000 the male and female participation in workforce were 32.2 million and 8.6 million respectively but in 2016-2017 the numbers were 43.5 million and 19.9 million (Raihan & Bidhisha, 2018). On the other hand, rising literacy and declining fertility rates result in smaller family size (UNICEF, 2015) or nuclear family, and in these nuclear families, children have to remain at home without parents or sometimes without a family member. When both parents are working outside of the home, their children suffer from social, emotional, behavioral and bonding issues, and increase screen addiction (Nair, 2018).

Apart from all the aforementioned issues, the National Mental Health Survey of Bangladesh for 2018-19 revealed that 14% adolescents and children aged 7 to 17 are suffering from mental health issues. The survey also revealed that most of these children are suffering from autism spectrum disorders and other neuro-developmental issues and 95% of them do not get or take any help from mental health professionals (Rahman, 2019). According to research conducted by Hossain et al. (2014), a significant portion of adults (6.5% to 31%) and children (13.4–22%) in Bangladesh experience mental health illnesses. The flip side of this is that there were 185 cases of neurodevelopmental abnormalities in children in 2013, up from 68 cases per 1,000 in 1988 (Khan & Durkin, 1995). Concerns about their child's neurodevelopment are leading more parents to seek help, which is consistent with a trend toward smaller families caused by falling fertility rates and growing levels of education (UNICEF, 2015).

In this context, given the close association between education and the social and economic growth of a country, the role of school psychologists is especially relatable here in Bangladesh. School psychology is a specialized branch of Psychology that focuses on enhancing academic performance, designing strategies and programs to address problems of learning and adjustment, and consulting with educators and parents on issues of development. In addition to having completed a minimum of a specialist-level degree program that involves a supervised internship, school psychologists have advanced training in both psychology and education. A school psychologist builds a pathway toward a promising future that includes academic success and commitment to preparing a child to be a good citizen.

Assessment of the Need for School Psychological Services in Bangladesh

To assess the need for school psychological services in Bangladesh, a two-day-long seminar on “School Psychology for Quality Citizen”, was jointly organized by the Bangladesh School Psychology Society (BSPS) and Policy Research Center.bd (PRCbd) on 30th and 31st January 2020 at the Royal Resort, Dhanbari, Tangail, Bangladesh. The seminar was targeted towards the students, teachers, and parents of three educational institutions of Dhanbari and a team of 47 members including a number of school psychologists, academicians, researchers and other experts in the relevant area led the seminar. There was a series of events intended to highlight the importance of school psychologists in helping all students thrive. The program also proposed actions that contribute to flourishing students and school communities and help the school staff, students, and parents. The assessment conducted there showed that there were several cases regarding different psychological issues of the students, teachers and parents that should be taken care of immediately which endorses the importance of School Psychology in Bangladesh. Data has also been collected through interviews and focus group discussions with a number of academicians, students, teachers and parents. Each participant in this study received a briefing on the overall goals of the study and was asked to volunteer for it. The study adhered to the guidelines of the Helsinki Declaration and its later amendments or comparable ethical standards.

Interview

In this study, data was collected from 46 interviewees, including school and college teachers, parents, school and college students, school principals, and school administrators. This was a face-to-face structured interview conducted by the authors.

Data obtained by interview revealed that students, teachers and families are not satisfied with the role of school in fulfilling the needs of the children. Some schools do not have playgrounds and washrooms are not clean and hygienic. In some schools, students are physically abused by teachers. Although many teachers use corporal punishment, some of them think that corporal punishment can never control children's behavior. Some students reported feeling of embarrassment to talk to their teachers about problems occurring in their families which causes difficulty in concentrating on their studies and regular work. As a result, the quality of student-teacher relationship is being compromised causing adjustment-related problems for students. Some parents also feel that their children are not always able to share their problems with their teachers and their children are being bullied at school and sometimes there is no action being taken to prevent it. Most of the students, teachers and parents agreed upon the need for school psychological services to manage these problems through helping the school authority in taking preventive measures, planning and implementing interventions for ensuring a safe and friendly school environment.

Focus Group Discussion

In a ‘Focus Group Discussion’ to get the point of view of the stakeholders related to education sector, we tried to identify why our schools need school psychologists and how

they play a vibrant role in schools. Focus group discussion was organized with 10 people, including the host, who were aware of school psychology. The entire discussion was conducted on zoom and took 1.20 minutes to complete. The discussion was recorded with the consent of all participants. This record was then transcribed into written form.

The content analysis of the discussion generated several themes that play a role in children's overall development. Firstly, it recognizes the importance of ensuring equity and supporting social-emotional learning for all students through school psychological services. With a student population of increasingly diverse needs, it is crucial to frame a coordinated plan around students' learning and academic success. Then, a teacher's orientation has been recognized as playing a vital role in the mental, physical, emotional, moral, social, and intellectual development of children. Teachers are role models who work harmoniously for the achievement of some mutually agreed goals of the school, and such schools are generally considered to have a strong culture and are preferred over others. Again, the risk of developing an internalizing or externalizing mental health problem can be lessened by changes in the school environment and by the implementation of evidence-based school programs. In this case, School Psychology has a very crucial role to play to ensure the overall development of our children. Finally, without the assistance of large grants, partnerships and structure, it is not anticipated to bring about changes in existing policy to provide students with the support needed to be successful in school and life. Accomplishing this task required a common vision by leaders and stakeholders, and infrastructure changes in partnerships with community organizations, including the local universities.

School Psychology in Bangladesh

Children and adolescents in Bangladesh are currently facing various challenges in domains such as academic, adaptive, social, emotional, behavioral, moral etc. and school psychologists in this country are making an effort to provide a common framework for helping children and adolescents with psycho-educational assessment, consultation, interventions, research and evaluation, in-service education, and administration. Additionally, School Psychologists try to help boost up potentials of learners without specific problems by applying principles of positive psychology. There is a not-for-profit professional organization named Bangladesh School Psychology Society (BSPS) which represents and supports the profession of School Psychologist by advancing effective practices to promote the highest standards of ethics, training, and professional practices in the provision of psychological services in the primary, secondary, and tertiary level academic institutions that include schools, madrasahs, colleges, universities, or any other teaching-learning and training institutions in Bangladesh. The BSPS is committed to guiding services like assessment, intervention, consultation, collaboration, and many more. Since its inception in 2017, the members of the BSPS have helped shape and develop School Psychology as an academic and applied branch of Psychological Science in Bangladesh.

Activities of School Psychologists in Bangladesh

School Psychology as an applied field creates and supports theories and practices in psycho-educational services to address and solve problems which learners of all ages may experience. A group of school psychologists has been handling the cases of migrant children from Covid-19 affected countries such as Italy, China, Saudi Arabia, UAE etc. Most of the migrated children are suffering from fear of death, fear of social stigma, Trauma, Insomnia, and mental health-related issues. Some of them are working in the International Centre for Migration Policy Development (ICMPD)'s Migrant Resource Centre project and handle the cases of migrants, returnee migrants and their families. The responsibilities of this program are included below:

1. Emergency Support
2. Psycho-social counseling for individual returnee
3. Case Management
4. Reintegration
5. Research
6. Awareness Session
7. Facebook Post, Facebook Live and Blog Writing

Besides these a number of school psychologist has been appointed to provide counseling services to the Rohingya people and host community people. Many of the school psychologists are currently working in different government organizations, hospital settings, schools, and as academicians in renowned educational institutions of the country as well.

Activities of Bangladesh School Psychology Society during Covid-19 situation

Like the rest of the world, Bangladesh faced significant challenges in combating the Covid-19 pandemic since the virus was confirmed to have spread to Bangladesh in March 2020. In the new normal world, people were facing new scenarios like working from home, unemployment, home-schooling of children and managing the fear of the virus. The Bangladesh School Psychology Society (www.bspbs.org.bd) has taken the initiative to provide free of cost online psychological support services, tele-counseling and other services to help and support people in this distressful situation, to help people cope with this social isolation through their official Facebook page (<https://web.facebook.com/bspbs.org/>), a widely used social network in Bangladesh. Psychology teachers, alumni, and students of MS in School Psychology program provided tele-counseling and telecast live shows on psychological and Covid-19 related topics for the Bangladesh School Psychology Society. Thus, school psychologists have been playing a crucial role in promoting positive mental health through various activities.

Conclusion

The view, aims, objectives, goals and principles of education policy of Bangladesh have been set to inspire the students, to stimulate the intellectual and practical qualities of the learners, to reflect the constitutional guarantee at all levels of education, to foster creative and thinking, to remove socio-economic discrimination irrespective of race, religion, and creed, to create a society free from the curse of illiteracy and many other aspects. Emphasis should be placed on the psychological environment in the school where children spent the most crucial part of their childhood. In this regard, a school psychologist would be the very right person to bring out the best in a child through interacting with the child, parent, teacher, and school's administrative staff. Working together, they can promote competence, achievement, and resilience in children.

The vision of school psychological services is that all children and youth thrive in school, at home, and throughout life. To place highly qualified school psychologists to fulfill this vision, initiatives must include addressing critical scarcities in school psychology. This can include a shortage of qualified faculty in graduate education programs, absence of training institutes, training programs, and lack of approved internships and qualified internship supervisors in the field of school psychology. In Bangladesh, the use of standardized psychological tests and tools for psychoeducational assessment is not common here. A few reputed private schools might have managed to use some of the psychoeducational assessment tools and have appointed trained counselors in their schools. Without suitable school psychology services, the present education system may not be able to effectively help the students face future challenges. So, the aims of schooling can be achieved by creating some provisions by constructing infrastructure for the growth of school psychology and appointing professionally trained school psychologists in all schools.

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Relationship between Humor Style and Psychological Well-Being of Bangladeshi University Students

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Abstract

Humor style plays an important role in maintaining psychological well-being. However, no research has yet addressed these concerns. Thus, this study aimed to determine the humor styles and psychological well-being of Bangladeshi university students and the relationship between humor style and their psychological well-being. A sample of 502 university students (346 males and 156 females) was conveniently selected for data collection. The average age of the students was 22.77 ± 1.95 years. The Bangla version of the Humor Styles Questionnaire and Warwick-Edinburgh Mental Well-being Scale were utilized to gather relevant data. The results revealed that positive humor styles, specifically Affiliative (36.75 ± 8.71) and Self-Enhancing (36.39 ± 8.74), were dominant among Bangladeshi university students than negative humor styles. Male students exhibited a higher tendency towards negative humor styles, such as aggressive humor (25.55 ± 7.13) and self-defeating humor (28.05 ± 8.49), compared to their female counterparts. Additionally, urban students demonstrated a higher inclination towards affiliative humor styles (37.51 ± 8.87) in comparison to rural students. Furthermore, it was found that Bangladeshi male university students had higher levels of psychological well-being compared to female students. A total of 15.9% reported poor psychological well-being. Psychological well-being is positively related to self-enhancing and affiliative humor but negatively related to aggressive humor. In conclusion, student's dominant humor style is positive humor style and the majority of students have moderate psychological well-being; however, a significant number of students, particularly females, have poor psychological well-being. Understanding the findings can help to design interventions that promote mental health among Bangladeshi university students.

Keywords: Humor, Humor styles, Psychological well-being, university student.

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In Bangladesh, around 76% of students face psychological problems, compared to the global average of 75% (Achol Foundation, 2022; ACHA, 2024). University students experience mental unease and tension as a result of their efforts to discover their identities and confront sensitive personal, interpersonal, and sociocultural issues. Furthermore, their disinterest in class, academic failures, nutritional and sleep patterns, and emotional issues lead to poor mental health problems with which they must cope well (Lovell et al., 2015; Pedrelli et al., 2015). Psychological well-being refers to inter- and intra-individual levels of positive functioning that might include one's relatedness to others as well as self-referent attitudes such as mastery and personal progress (Burns, 2017). Thus, the well-being of university students may be influenced by their humor. Humor is an ability or skill that can assist a person in dealing with a difficult situation and helps people cope with stress effectively, enjoy a better life, experience fewer negative emotions, and have healthier interpersonal relationships (Bennett et al., 2014). Humor can be defined as the tendency of particular cognitive responses to provoke laughter, physical reactions, and amusement (Tariq et al., 2013). So, humor could decrease tensions and inconsistency, emotional pain, and, finally, increase psychological well-being. However, not all humor is beneficial for psychological well-being. Martin et al., (2003) identified four humor styles. Among them two are adaptive such as, i) affiliative and ii) self-enhancing; rest two are maladaptive humor such as, iii) aggressive and iv) self-defeating (Martin et al., 2003; Martin, 2007). Adaptive humor has often been proposed as a personal quality capable of facilitating the achievement of psychological well-being whereas, maladaptive humor has oposite effect.

Humor Style and Gender

In Western culture, gender found mixed results using humor style. For example, Spanish males found higher on *aggressive* humor than females (Torres-Marin et al., 2018) but Spanish university male students use all four humor styles (affiliative, self-enhancing, aggressive, and self-defeating) more than female students (Salavera et al., 2020). A cross-cultural study found cultural differences across 28 countries, such as Schermer et al. (2019) investigated the humor styles in 28 countries (some are developed and some are least developed countries) and found men and women did not differ significantly in the *affiliative* humor style score, but men scored higher on the *aggressive*, *self-enhancing*, and *self-defeating* humor style. With the exception of Canadian and American women scored higher on *self-enhancing* humor than men (Schermer et al. 2019). In the Middle East, Shraifin et al. (2021) claimed Jordanian females use more *affiliative* and *self-enhancing* humor than males but males use more *aggressive* & *self-defeating* humor than females (Shraifin et al. 2021). In South Asia, gender roles are found confusing. For example, Idrees et al. (2020) found that Pakistani university male students only used more aggressive humor styles compared to females (Idrees et al., 2020). In India, Hiranandani and Yue (2015) found that male university students have a significantly higher self-related humor style (self-enhancing and self-defeating) than females. In contrast, Gauri and Kanwar (2022) found no gender differences in humor style among Indian students.

Humor Style and Wellbeing

Some researchers claim that self-defeating humor is good for oneself and others (Heintz & Ruch, 2018). In Western culture, humor style found related to one's social skills, psychological distress, and relationship satisfaction. For example, Salavera et al. (2020) conducted a study in Spain on university students and found that humor style was associated with social skills. Lazzaro et al. (2022) found that American University Students' *affiliative* humor was associated with higher levels of *relationship satisfaction* while self-enhancing humor was associated with less psychological distress and greater well-being. Their self-enhancing humor was also found positively related to relationship satisfaction. Furthermore, aggressive humor was not found to be associated with lower relationship satisfaction, and self-defeating humor was not associated with anxiety (Lazzaro et al. 2022). Torres-Marín et al. (2018) conducted a study in Spain and identified that people who frequently use self-defeating humor gain the approval of others through self-mockery, which is the reason for higher levels of psychological well-being (happiness) of Western people (Torres-Marín et al., 2018).

In Asian countries, Chaigusin and Promsri (2020) found that Thai university students' most preferred humor style was 'affiliative humor' while 'aggressive humor' was reported as the least preferred humor style. They also found that excellent students had low aggressive humor (Chaigusin & Promsri, 2020). Riswasono et al. (2022) found that most of the Indonesian universities, who were in dating relationships used affiliative humor (56.4%) and aggressive humor (53%). Moreover, the humor style predicts the forgiveness of university students (Riswasono et al. 2022). Balmores-Paulino (2021) found that adaptive humor styles (affiliative and self-enhancing humor styles) of Philipino University students were positively associated with all the dimensions of psychological well-being, whereas maladaptive humor styles (aggressive and self-defeating humor styles) were negatively associated with psychological well-being indicators. Furthermore, maladaptive humor style (aggressive and self-defeating) appears to be positively associated with direct and hostile forms of collective behavior. Jordanian university students' psychological well-being level was found average on the total scale (Shraifin et al. 2021).

In South Asia, Idrees et al. (2020) found that humor styles significantly related to interpersonal relationships of Pakistani university students. Their findings revealed that the affiliative humor style predicted interpersonal relationships negatively, whereas the self-defeating humor style predicted interpersonal relationships positively (Idrees et al., 2020). Hiranandani and Yue (2015) showed that Indian university students use more adaptive humor style than maladaptive humor style (Hiranandani and Yue, 2015). In another study in India conducted by Gauri and Kanwar (2022), they found aggressive and affiliative humor were the dominant humor styles of university students. They also found no association of humor styles with emotional intelligence and life orientation (Gauri and Kanwar, 2022). Another Indian study conducted by Jolly and Lokesh L (2022) examined the relationship between humor style and subjective happiness in university students and discovered that

adaptive humor styles (affiliative humor and self-enhancing humor) significantly predicted self-esteem and subjective happiness and mediated the relationship between self-esteem and subjective happiness, whereas maladaptive humor style did not (Jolly and Lokesh, 2022). Jiang et al. (2020) conducted a meta-analysis to investigate the relationship between humor style and mental health. They discovered that affiliative and self-enhancing humor improves Subjective Well-Being (SWB) while aggressive and self-defeating humor degrades SWB. Culture and age have no influence on the relationship between humor styles and SWB (Jiang et al., 2020).

Humor Style and Residential Background

According to Utley (1971), urban jokes are associated with wit, while rural jokes are associated with humor. So, the sense of humor may differ between rural and urban areas. Fan et al. (2021) conducted a study in China where they found that urban male students and rural female students exhibit a greater tendency to engage in self-enhancing humor, while urban female students are relatively weak; first-grade senior high school students from the city prefer maladaptive aggressive humor (Fan et al., 2021). Tsuno and Yamazaki (2007) discovered that sense of humor orientation was only associated with a Sense of coherence in rural areas, not in urban areas.

According to the above literature, males outperformed females in terms of *aggressive humor* (Torres-Marin et al., 2018). Most of the Asian students dislike this type of humor (Chaigusin & Promsri, 2020). However, urban Chinese female students who were relatively weak preferred more aggressive humor (Fan et al., 2021), whereas excellent students preferred less (Chaigusin & Promsri, 2020). When it comes to *self-defeating* humor, men use it more than women. This humor style is associated with personal growth (Balmors-Paulino, 2021), happiness (Torres-Marin et al., 2018), and all dimensions of psychological well-being. In the case of *affiliative humor*, no gender difference was found across different countries. The majority of university students preferred this humor style (Chaigusin & Promsri, 2020), which is related to relationship satisfaction (Lazzaro, et al. 2022), all dimensions of psychological well-being (i.e. autonomy, environmental mastery, personal growth, positive relationship with others, purpose in life, and self-acceptance) (Balmors-Paulino, 2021). In the case of *self-enhancing* humor, males are used more than females in most of the country but in Canada and the United States, this is the opposite (Schermer et al., 2019). Moreover, urban male and rural female students use more humor than their counterparts (Fan et al., 2021). Self-enhancing humor is directly associated with four components of psychological well-being such as environmental mastery, positive relations with others, purpose in life, and self-acceptance (Balmors-Paulino, 2021) and also positively associated with subjective happiness (Jolly and Lokesh, 2022).

On the one hand, both affiliative and self-enhancing humor are associated with interpersonal relationships (Idrees et al., 2020), students' academic performance (Bautista, 2022), self-esteem (Jolly and Lokesh, 2022), and subjective well-being (Jian et al.,

2020). However, both aggressive and self-defeating humor styles decrease subjective and psychological well-being in all dimensions (Balmores-Paulino, 2021). Males used all humor styles more than females and humor style was also associated with social skills (Salavera et al., 2020).

However, Bangladeshi university students' humor style psychological well-being status, and relationships were not studied yet considering gender and residential background. Thus, this study aims to identify the relationship of humor style with the psychological well-being of Bangladeshi university students, considering residential background, and gender.

Objectives of the Study

The following are the particular objectives of the study-

1. Explore the humor-style status of Bangladeshi university students in terms of gender and residence.
2. Explore the psychological well-being status of Bangladeshi university students in terms of gender and residence.
3. Find out the relationship of humor style with the psychological well-being of Bangladeshi university students in terms of gender and residence.

Methods

Participants

An online survey was conducted to collect data using a survey link created on a Google Form. It was then distributed via email and social media like Facebook, WhatsApp, etc. This study included 502 Bangladeshi university students (346 men and 156 women) who filled out an online form. Their ages ranged from 18 to 28 years old. A random sampling technique has been used to collect the sample. Gender, age, residence, education level, and family background were collected as demographic information of the participants.

Table 1

Demographic characteristics of the participants (N=502)

Demographics	Levels	Frequency (%)
Age	18-22	241(48.0)
	23-28	261(52.0)
Gender	Male	346 (68.9)
	Female	156 (31.1)
Residential status	Urban	312 (62.2)
	Rural	190 (37.8)

Demographics	Levels	Frequency (%)
Level of education	Honors	435 (86.7)
	Masters	67 (13.3)
Family type	Nuclear	379 (75.5)
	Joint	123 (24.5)

Measures

Humor Styles Questionnaire (HSQ)

The HSQ (Martin et al., 2003) is a 32-item questionnaire designed to assess four types of humor: self-enhancing, affiliative, self-defeating, and aggressive humor. The Bangla version of HSQ was adapted for this study. Eight items assess each of the four humor styles, and respondents rate their agreement with each item on a 7-point Likert scale (1 = Totally disagree to 7 = Totally agree). In the present sample, Cronbach's alpha of affiliative, self-enhancing, aggressive, and self-defeating humor was .69, .74, .60, and .73, suggesting that the scale is reliable to use as an instrument.

Warwick-Edinburgh Mental Well-Being Scale

The Warwick Edinburgh Mental Wellbeing Scale (WEMWBS; Tennant et al. 2007) is a 14-item quick measure for assessing psychological well-being among the general population. This scale along with the Bangla version (Rahman & Imran, 2013) has good reliabilities and construct and concurrent validities. For the scale, participants were asked to rate their responses to their feelings over the past week. They were rated on a 5-point Likert-type scale, from 1 (none of the time) to 5 (all the time)-with total scores ranging from 14 to 70. Higher scores indicate better psychological well-being. For WEMWBS, scores were 'low': 14–42; 'medium': 43–60; and 'high': 61–70 (Fat et al., 2017). The content validity and internal consistency were 0.91. The test-retest reliability was .83 with one week gap. In the present study, the WEMWBS had good internal consistency reliability (Cronbach's alpha= .90).

Procedure

For this study, a Google Form was created, and the link was distributed via Facebook Messenger and email to the targeted university students. Participants were assured that their information would be kept confidential and only used for research purposes. They were then asked to give honest and sincere answers to the questions. Participants completed questionnaires about their demographics, humor styles, and psychological well-being. Then they were thanked for their sincere cooperation.

Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS), IBM Statistics version 25.0. Descriptive analyses to describe the socio-demographic characteristics. The data were also analyzed by applying independent sample t-tests and bivariate correlations.

Results

The results of the study are presented in the tables below. Normality tests were performed before the final analysis to check the normality assumption of the collected data. Table 02 displays descriptive statistics for our data, with skewness values ranging from -.520 to .820, which is within Brown's (2015) acceptable range of -3 to +3. Kurtosis values in our data ranged from -.003 to -1.754, which is within the acceptable range of -2 to +2 for a normal distribution, according to George and Mallory (2010).

Table 2

Descriptive statistics for Humor style, PWB, gender, and residential background.

	Min	Max	M	SD	Skew	Kurt	N
Gender	1.00	2.00	-	-	.820	-1.33	502
Residence	1.00	2.00	-	-	.503	-1.75	502
AF	10.00	56.00	36.75	8.68	-.129	-.261	502
SE	10.00	56.00	36.39	8.72	-.292	-.234	502
AG	8.00	42.00	24.26	7.30	.122	-.417	502
SDH	8.00	52.00	27.05	8.91	-.187	-.497	502
PWB	19.00	70.00	52.32	10.58	-.520	-.003	502

Note: AF= Affiliative Humor, SE=Self-enhancing humor, AG= Aggressive Humor, SDH=Self-defeating humor, PWB= Psychological Well-being.

Humor Style of Bangladeshi University Students

From Table 03, the result showed that the Affiliative humor style ($M=36.75$, $SD=8.68$) and Self-enhancing humor style ($M=36.39$, $SD=8.72$) were higher among Bangladeshi university students. So, Bangladeshi university students use less aggressive humor and self-defeating humor style.

Table 3

Humor Style of Bangladeshi University Students

Humor Style	N	Mean	SD
Affiliative	502	36.75	8.68
Self-enhancing	502	36.39	8.72
Aggressive	502	24.26	7.30
Self-defeating	502	27.05	8.91

In terms of gender, from Table 04, the Independent samples t-test indicated that the aggressive humor style score of Male students ($M=25.55$, $SD=7.13$) was significantly higher than female ($M=21.38$, $SD=6.88$) university students, $t(500)=6.13$, $p<.01$.

Similarly, self-defeating humor style score of Male students ($M=28.05, SD=8.49$) was also significantly higher than female ($M=24.80, SD=9.42$) university students, $t(500)=3.83, p<.01$. It was also looked into further that, urban male student significantly higher than the female urban student in aggressive humor $t(312)=4.95, p<.01$, and self-defeating humor $t(312)=4.29, p<.01$. But for rural male students ($M= 25.18, SD=7.07$) found higher than female ($M=19.63, SD= 6.88$) only in aggressive humor score $t(188)=4.06 p<.01$. **Thus**, Bangladeshi male university students showed more aggressive and self-defeating humor than female in the urban area but showed more aggressive humor only in rural areas.

Table 4

Humor Style of University Student according to gender

	Humor Style	Gender	N	Mean	SD	df	t	Level
Overall	Affiliative	Male	346	36.48	8.75	500	-1.05	ns
		Female	156	37.35	8.51			
	Self-enhancing	Male	346	36.54	8.43	500	0.57	ns
		Female	156	36.06	9.35			
	Aggressive	Male	346	25.55	7.13	500	6.13*	.01
		Female	156	21.38	6.88			
Urban	Self-defeating	Male	346	28.05	8.49	500	3.84*	.01
		Female	156	24.80	9.42			
	Affiliative	Male	188	37.37	9.18	312	-0.36	ns
		Female	124	37.74	8.42			
	Self-enhancing	Male	188	36.57	8.43	312	0.56	ns
		Female	124	35.99	9.02			
Rural	Aggressive	Male	188	25.87	7.18	312	4.95*	.01
		Female	124	21.48	6.84			
	Self-defeating	Male	188	29.28	8.41	312	4.29*	.01
		Female	124	24.83	9.77			
	Affiliative	Male	158	35.42	8.13	188	-0.28	ns
		Female	32	35.88	8.87			
	Self-enhancing	Male	158	36.51	8.00	188	0.09	ns
		Female	32	36.34	10.71			
	Aggressive	Male	158	25.18	7.07	188	4.06*	.01
		Female	32	19.63	6.88			
	Self-defeating	Male	158	26.60	8.39	188	1.18	ns
		Female	32	24.69	8.09			
		Total	502					

p<.01, ns= Not Significant*

In terms of residential background from Table 05, the Independent samples t-test indicated that overall only the affiliative humor style score of urban students ($M=37.51$, $SD=8.87$) was significantly higher than rural ($M=35.38$, $SD=6.88$) university students, $t(500)=2.53$, $p<.05$. But there were no significant difference in self-enhancing, aggressive, and self-defeating humor style. Furthermore, when we looked further for university male students, and found urban students ($M=37.37$, $SD=9.18$) showed significantly higher levels of affiliative humor, $t(188)=2.07$, $p<.05$ than rural students ($M=35.42$, $SD=8.13$). Similarly, urban male students ($M=29.28$, $SD=8.41$) also showed higher self-defeating humor than rural male students ($SD=26.60$, $SD=8.39$). However, there were no significant differences found for female urban or rural students in any humor style. In sum, urban university students showed more affiliative humor than rural university students. Only urban male students showed more affiliative and self-defeating humor than rural male students.

Table 5
Humor Style of University Students according to residents

Variable	Humor Style	Residence	N	Mean	SD	df	t	Level
Overall	Affiliative	Urban	312	37.51	8.87	500	2.54*	.05
		Rural	190	35.50	8.23			
	Self-enhancing	Urban	312	36.34	8.88	500	-0.17	ns
		Rural	190	36.47	8.48			
	Aggressive	Urban	312	24.26	7.30	500	0.04	ns
		Rural	190	24.24	7.32			
	Self-defeating	Urban	312	27.51	9.22	500	1.51	ns
		Rural	190	26.27	8.35			
Male	Affiliative	Urban	188	37.37	9.18	344	2.07*	.05
		Rural	158	35.42	8.13			
	Self-enhancing	Urban	188	36.57	8.80	344	0.07	ns
		Rural	158	36.51	8.00			
	Aggressive	Urban	188	25.87	7.18	344	0.90	ns
		Rural	158	25.18	7.08			
	Self-defeating	Urban	188	29.28	8.41	344	2.96*	.05
		Rural	158	26.60	8.39			
Female	Affiliative	Urban	124	37.74	8.42	154	1.11	ns
		Rural	32	35.88	8.87			
	Self-enhancing	Urban	124	35.99	9.02	154	-0.18	ns
		Rural	32	36.34	10.70			
	Aggressive	Urban	124	21.84	6.84	154	1.63	ns
		Rural	32	19.63	6.88			
	Self-defeating	Urban	124	24.83	9.77	154	0.07	ns
		Rural	32	24.69	8.09			
		Total	502					

p<.05*, ns= Not Significant

Psychological well-being of Bangladeshi University Students

In Table 06, an independent samples t-test indicated that male university students ($M=53.22$, $SD=10.34$) had significantly higher psychological well-being than female students ($M=50.31$, $SD=10.84$), $t(500)=2.87$, $p<.05$. Result also indicated that male university students had a higher level of psychological well-being than female only who lived in the urban area. However, there were no significant differences in psychological well-being in terms of overall residential background. Which indicated that urban and rural university students had similar psychological well-being. So, the psychological well-being of male students is better than female students only in urban areas.

Table 6

Psychological well-being of University Students according to gender and residence

Variable		N	Mean	SD	df	t	Level
Gender	Male	346	53.22	10.34	500	2.87*	.05
	Female	156	50.31	10.84			
Urban	Male	188	53.69	10.44	310	2.49*	.05
	Female	124	50.65	10.75			
Rural	Male	158	52.66	10.24	188	1.80	ns
	Female	32	49.03	11.29			
Residence	Urban	312	52.48	10.65	500	0.44	ns
	Rural	190	52.05	10.48			
Male	Urban	188	53.69	10.44	344	0.93	ns
	Rural	158	52.66	10.24			
Female	Urban	124	50.65	10.75	154	0.75	ns
	Rural	32	49.03	11.29			

$p<.05*$, ns= Not Significant

The result from Table 07, showed that 60% of university students have moderate levels and 24.1% of students have higher levels of psychological well-being. Contrary, 15.9% (out of 502) university students have poor psychological well-being whereas, 21.2% (out of 156) of them were female and 13.6% (out of 346) of them were male. In addition, about 15% of Bangladeshi University students and 21.2% of female university students bear poor psychological well-being.

Table 7*Psychological well-being status of University Students according to gender and residence.*

Variables	Psychological well-being								
	Low		Medium		High		Total		
	N	%	N	%	N	%	N	%	
Gender	Male	47	13.6	207	59.8	92	26.6	346	68.9
	Female	33	21.2	94	60.3	29	18.6	156	31.0
Resident	Urban	50	16.0	186	59.6	76	24.4	312	62.2
	Rural	30	15.8	115	60.5	45	23.7	190	37.8
	Total	80	15.9	301	60.0	121	24.1	502	

Relationship of Humor style and Psychological Well-being

The correlation matrixes of the variables are given in Table 08. The correlation matrix indicated that overall psychological well-being was positively correlated with affiliative ($r=.167$), self-enhancing ($r=.449$) negatively correlated with aggressive humor ($r=-.159$) but a relationship was found for self-defeating humor. When we looked further, our results showed that only male students' affiliative humor positively correlated with psychological well-being but not correlated with female students. In the case of residential background, psychological well-being is positively correlated with self-defeating humor ($r=.146$) of urban university students.

Table 8*Correlations of different Humor Styles and Psychological well-being of University Students*

	Variables	AF	SE	AG	SD
Overall	PWB	.166**	.450**	-.159*	.053
Gender	Male	.214**	.431**	-.239**	.059
	Female	.088	.488**	-.120	-.020
Residence	Urban	.170**	.471**	-.124*	.001
	Rural	.157*	.413**	-.218**	.146*

$p<0.01^{**}$, $p<0.05^*$

Discussion

The present study aimed to explore the status and relationship of humor style and the psychological well-being of Bangladeshi University students. The first objective of the present study was to explore the humor style of Bangladeshi university students in terms of gender and residence. Our findings showed that Bangladeshi university students used positive humor styles more than negative humor styles. This reflects that Bangladeshi students tend to use more affiliative humor and self-enhancing humor than aggressive humor and self-defeating humor style.

Moreover, males and females both tend to use similar positive humor styles (affiliative and self-enhancing). These findings are consistent with the findings of Gauri and Kanwar (2022) in Indian culture where they found no gender difference. However, these findings contradict with Shraifin et al. (2021) in Jordanian culture where they found that only females use more positive humor. This finding indicated that Middle East peoples' humor patterns are different from our Bangladeshi culture. On the other side, in our findings, males considered themselves to be used more for negative humor styles (aggressive and self-defeating humor) than females in rural areas. This finding of our result is consistent with the findings of Shraifin et al. (2021), Martin & Kuiper (1999), Sari & Aslan (2005), and Yerlikaya (2007) where they showed a greater tendency of males to engage in harmful styles of humor.

In the case of residential background, urban students tend to use a more affiliative humor style than rural students which indicates that Bangladeshi University students who live in urban areas use affiliative humor style more than students who live in rural areas. This difference was found only between urban and rural male students but not found in female urban and rural students. This finding is inconsistent with the finding of Fan et al. (2021) who found that urban male students and rural female students exhibit more self-enhancing humor. Moreover, only urban male students tend to use more self-defeating humor than rural male students. This finding suggested that only male students who were living in the urban areas also used self-defeating humor than rural male students.

Our second objective of this study was to explore the psychological well-being status of Bangladeshi University Students in terms of gender and residence. Our findings revealed that the majority of Bangladeshi university students (60%) have a moderate level of psychological well-being, while 15.9% (out of 502) have poor psychological well-being. Of these, 21.2% (out of 156) are female and 13.6% (out of 346) are male. This finding clearly shows that female university students are more vulnerable than male students in Bangladesh. Furthermore, It is also evident that male psychological well-being is significantly better than female university students. But in terms of residential background, students who were from urban and rural areas, possess similar psychological well-being. These findings of us consistent with the findings of Guven (2008) and Akhter (2014) where they found the psychological well-being level of men was higher than that of women. However, our findings contradict the findings of Amran and Khairiah (2014), who found no significant difference in psychological well-being based on gender.

Our third objective of the research was to explore the relationship of humor style and the psychological well-being of Bangladeshi university students in terms of gender and residence. Our findings revealed that affiliative and self-enhancing humor styles are positively related to psychological well-being, whereas aggressive humor styles were negatively related to it. These findings are consistent with the findings of Balmores-Paulino (2021) in the Philipines where they found that adaptive humor positively and maladaptive humor negatively related to all the dimensions of psychological well-being. These findings

are also consistent with Jiang et al. (2020). When we look into further considering gender, we found that only the self-enhancing humor style of female students is positively related to psychological well-being. Contrarily, affiliative humor, aggressive humor, and self-defeating humor styles of female university students are not related to psychological well-being in Bangladesh. This happened in Bangladesh because, in Bangladesh female students do not benefit from affiliated humor. Thus, for the betterment of Bangladeshi female university students need to focus more on self-enhancing humor rather than affiliative humor. When we considered residence, we found that university student who came from rural areas, their self-defeating humor style was positively related to psychological well-being. This finding indicates that Bangladeshi university students who lived in rural areas benefitted from self-defeating humor. In other words, self-defeating humor increases psychological well-being rather than decreasing it among Bangladeshi university students. These findings are inconsistent with the findings of previous researchers such as Balmores-Paulino (2021) and Jiang et al.(2020). This may happen due to the culture of Bangladeshi rural people where people tend to be happy saying funny things at one's own expense. By doing this, rural people in Bangladesh can neutralize their negative emotions and make themselves feel happy. Thus, psychological well-being is positively related with this self-defeating humor.

Conclusions

In conclusion, findings in the present study suggest that urban residential background university male students showed more affiliative humor than rural university male students. Urban male students also showed more self-defeating humor than rural male students. The psychological well-being of male students are better than female students only in urban areas. About 15% of Bangladeshi University students bear poor psychological well-being among them most of them are female students. Psychological well-being is positively associated with affiliative and self-enhancing humor and negatively associated with the Aggressive humor style of Bangladeshi University students but female student's psychological well-being is only associated with self-enhancing humor. Finally, interestingly, psychological well-being is positively associated with self-defeating humor for urban students.

Limitations

The present study has several limitations. First, in this study, an online platform (Google Form) was used to collect the data, and therefore, only students who had internet access and devices could participate. Second, the present study used only self-reported measures to measure psychological well-being and humor style. Thirdly, the most obvious limitation is the small sample size. The present sample represents only university students in Bangladesh, so the generalization of this finding is limited to university students only.

Future Directions

The generalizability of the results is limited because the sample was only taken from students, so it is suggested that future researchers investigate with a diverse sample, which will undoubtedly increase the external validity of the results. To measure the variables of the study, multiple instruments can be used to get more valid and reliable results. Longitudinal studies in the future can help to determine the contribution of humor styles to other factors contributing to mental health, such as emotional well-being, subjective happiness, and resilience.

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Resilience as Predictor of Life Satisfaction and Mental Well-Being among Selected Southern University Students of Bangladesh

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Abstract

The aim of this study was to investigate how resilience affects young adults' mental health and life satisfaction in Bangladesh. To achieve this end, a total number of 440 students were selected randomly from different universities situated in the southern part of Bangladesh. The Bangla version of the Resilience Scale for Adults (RSA), The Warwick Edinburg Mental Well-being Scale (WEMWBS), and Satisfaction with Life Scale (SWLS) were administered to measure variables. Independent sample *t*-test, Pearson product moment correlation and simple linear regression were performed to test the data. The results of *t*-test revealed significant gender differences in life satisfaction, and correlation analysis revealed significant positive correlation among resilience, mental well-being and life satisfaction. Simple linear regression results revealed that 2.1% of the variability in life satisfaction and 29.8% of the variability in mental health were significantly predicted by resilience. This finding illustrates that increasing resilience will increase mental well-being and life satisfaction among university students in Bangladesh. Therefore, psychotherapy interventions that aim to strengthen psychological resilience and improve mental well-being may raise a person's level of life satisfaction overall.

Keyword : Life Satisfaction, Mental Well-Being, Resilience, University Students

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Resilience is an essential aspect of mental well-being that allows individuals to bounce back from adversity, maintain positive mental health, and adapt to changing circumstances (Masten & Narayan, 2012). It can be characterized by good outcomes despite the presence of serious threats to adaptation or development (Masten, 2001). It may be seen as a self-regulatory protection mechanism that an individual utilizes when confronted with the possibility of experiencing challenging consequences at specific points in their lives (Mayordomo-Rodríguez et al., 2015). Individuals who have this type of intrapersonal cognitive capacity (positive cognitive triad) are able to better cope with stressful situations and adversity, which in turn enhances their general well-being (Mak et al., 2011).

Many studies have examined life satisfaction in relation to well-being and found that it is a predictor of a variety of diverse health outcomes (Diener et al., 2010). Life satisfaction is a measure of people's overall assessment of their lives (Campbell et al., 1976). According to Diener (2013), life satisfaction is a cognitive aspect of subjective well-being that revolves around an individual's views and beliefs about their own life. It is a significant predictor of many favorable intrapersonal, interpersonal, psychological, social, and personal outcomes (Liu et al., 2013).

Definition of well-being can vary in terms of persons and their values and views. Therefore, the idea of well-being is difficult to define (Crone et al., 2008). Being in good health does not mean that there is no illness or disability; rather, it means that one is in a state of whole mental, physical, and social well-being. One's overall health is intrinsically linked to and dependent upon their mental state. It is a condition of mental well-being in which every individual fulfills his or her own potential, can manage the typical pressures that come with life, can work in a way that is both productive and fruitful and can contribute to his or her community (WHO, 2010). Mental well-being is defined as "the presence of positive emotions and moods (such as contentment and happiness), the absence of negative emotions (such as depression and anxiety), satisfaction with life, fulfillment, and positive functioning," (American Psychological Association, 2021).

A significant positive correlation was observed between resilience and general life happiness in a study conducted by Abiola and Udofia (2011), which included a sample of university students from Nigeria. A positive relationship between life satisfaction and resilience in students has been found due to the fact that students who felt better and developed resources for living well are more likely to have a good relationship between life satisfaction and resilience (Abolghasemi et al., 2010). Cazan & Truta, (2015) found that, resilience had a positive correlation with life satisfaction among college students. Resilience is predictive for long-term psychological health, and psychological health is correlated with resilience (Vinayak & Judge, 2018).

Resilient older persons have more pleasant emotions and report better levels of life satisfaction (Fredrickson et al., 2003). People who have been resilient and able to face challenging situations in their life have reportedly been shown to be happier in their later

years. Because those who are more resilient to adversity are more likely to encounter it, resilience has been connected with higher levels of life satisfaction (Poletto et al., 2011; Windle et al., 2011). Persons who showed high levels of resilience had decreased rates of post-traumatic stress disorder (PTSD) and depression (Bonanno et al., 2006).

Several scholarly works have proposed that demographic factors significantly influence mental health and psychological well-being. For instance, compared to male students, female students have been reported to exhibit higher emotional and health-related concerns (Lin et al., 2020). Furthermore, research findings generally indicated that gender should be taken into account when assessing the mental health of university students (Zhou, 2020). Women report higher levels of life satisfaction but are also more prone to experience depression (Becchetti & Conzo, 2022). A study conducted by (Saddique et al., 2021), found that female university students show a strong tendency toward resilience, perceived social support, and subjective well-being.

Research on the relationship between resilience, mental well-being, and life satisfaction across time in Bangladesh's southern area is lacking, despite the growing interest in resilience. As a result, a particular group of people, such as young people in Bangladesh, were unaware of the strong link between resilience and mental well-being and life satisfaction. This research would offer insightful information on the elements influencing life satisfaction and mental health. The goal of the study's findings is to make a small contribution to young adults' health in southern Bangladesh. The results could also have implications for resilience development, which aims to improve life satisfaction and mental health. As a result, the goal of the current study is to ascertain how resilience among college students in Bangladesh's southern region relates to their mental well-being and level of life satisfaction.

Objectives of the study

The aims of the current investigation were:

- i. To investigate whether there is any gender difference among resilience, mental well-being and life satisfaction.
- ii. To investigate whether there is any relationship among resilience, mental well-being and life satisfaction.
- iii. To investigate whether life satisfaction can be predicted by resilience.
- iv. To investigate whether mental well-being can be predicted by resilience.

Method

Participants

A sample of 440 students (50% women, 50% men) ranging from 18 to 28 years were recruited from different universities (BSMRSTU-Bangabandhu Sheikh Mujibur Rahman

Science and Technology University, BU-Barisal University, KU-Khulna University, JUST-Jessore University of Science and Technology) situated in the southern region of Bangladesh. Universities and departments were chosen using simple random sampling. Cross-sectional design was followed to conduct this research.

The inclusion criteria were students whose age ranged between 18 to 28 years, and studied in southern region university. The exclusion criteria were physically ill, drug addicted, socially isolated students. Table 1 shows the frequency of participants from different universities situated at southern region of Bangladesh.

Table 1
Frequency and percentages of participants from different universities

University	N	Total (%)	Male		Female	
			n	(%)	n	(%)
BSMRSTU	110	25%	70	63.63%	40	36.36%
BU	110	25%	50	45.45%	60	54.54%
KU	110	25%	64	58.18%	46	41.81%
JUST	110	25%	36	32.72%	74	67.27%

Sample description

A total of 440 students from different departments and different universities in southern Bangladesh met the inclusion criteria. There were 220 male and 220 female among them. Their ages ($M = 22.84$ years, $SD = 1.49$ years) varied from 18 to 28 years. Table 2 displays the characteristics of the participants.

Table 2
Demographic characteristics of the participants

Variable	N	Percent (%)	Male (%)	Female (%)
Family Type				
Nuclear	352	80	82.3	77.7
Joint	88	20	17.7	22.3
Social class				
Lower class	90	20.5	25.9	15.0
Middle class	342	77.7	71.8	83.6
Higher class	8	1.8	2.3	1.4
Marital status				
Married	52	11.8	6.4	17.3
Unmarried	376	85.5	90.0	80.9
widow	12	2.7	3.6	1.8

Measures

Along with a personal information form, participants had to complete the following three self-report Bangla questionnaires.

Personal Information Form

Demographic information was collected through using personal information form. There were questions about participant's age, gender, family type, social class, academic year, etc.

Resilience Scale for Adults (RSA)

Friborg et al. (2011) developed this scale and the Bangla version was used for this study. The translation was done by Prokrity and Uddin (2017) to measure resilience of Bangladeshi people. RSA contains 33 items and comprises five factors. Respondents rate each item on a 7-point (1= strongly disagree to 7= strongly agree) Likert-type Scale. A higher score reflects a higher level of resilience. The total RSA score can range from 33 to 231. Based on Cronbach's alpha, all RSA subscales had satisfactory levels of internal consistency. With correlation values ranging from 0.057 to 0.311, every RSA subscale showed positive association with every other subscale. Research has indicated that this scale contains high convergent and criterion-related validity. In this study, Cronbach's alpha coefficient was found .94 showed very high internal consistency.

The Warwick Edinburg Mental Well-Being Scale

The WEMWBS was created to assess mental health in general populations. It has been validated in populations of English and Scottish students as well as general community samples. Rahman and Imran (2013) adapted the Bangla version of WEMWBS to Bangladeshi culture. Each of the 14 items on the scale has five possible answers: "none of the times", "sometimes", "now and then", "often", and "all of the times". Likert-type choices will be used to score responses, with a range of 1 to 5. On this scale, a minimum of 14 is feasible and a high of 70 is possible. The Cronbach's alpha coefficient in this investigation was 0.86.

Satisfaction with Life Scale

This scale was created in 1985 by (incorrect citation format). Illyas (2001) customized this scale to be used in Bangla. A 5-item assessment tool intended to gauge an individual's overall life satisfaction based on cognitive judgments rather than assessing happy or negative emotion. Using a 7-point scale that goes from 7 strongly agree to 1 strongly disagree, participants indicate how much they agree or disagree with each of the 5 items. The following range of scores represents the degree of satisfaction or dissatisfaction; 31-35 extremely satisfied, 26-30 satisfied, 21-25 slightly satisfied, 20- Neutral, 15-19 slightly dissatisfied, 10-14 dissatisfied, and 5-9 extremely dissatisfied. Cronbach's alpha coefficient for this study was found .74 that showed good internal consistency reliability.

Procedure

Each participant's data was gathered individually. Before giving their agreement, participants were made aware of the purpose and nature of the study. The gathered information will be kept confidential, as was made quite clear. A verbal overview of the scale's features, question types, and rating scales was given to the participants. Although there was no time limit on the study, individuals had to complete the scale in about 30 minutes. Following that, the responses were verified. They were requested to supply the appropriate answers to any incomplete or double-rated questions that remained unanswered. They were asked to submit general demographic information after finishing three questionnaires. As a token present for their participation, each participant received a pen and chocolate.

Data processing and statistical analysis

Each participant's responses were scored according to the scoring principal of Resilience Scale for Adults, Warwick Edinburg Mental Well-Being Scale, and Satisfaction with Life scale. To analyze the data SPSS software was utilized. At first, to quantify the differences between males and females, an independent sample “*t*” test was performed. To investigate the connections among resilience, mental health, and life satisfaction, Pearson's correlation coefficient was computed. To determine how predictable resilience is in relation to mental health and life satisfaction, a simple linear regression analysis was employed.

Result

Independent sample *t*-test

Table 3 indicated no significant gender difference exists between male and female in measuring resilience ($t=.284$; $p>.05$) and mental well-being ($t=.96$; $p>.05$). Result also showed significant gender difference in measuring life satisfaction ($t=2.19$, $p<.05$), that means female exhibited higher score on life satisfaction ($M = 23.38$, $SD = 5.89$) compare to the male ($M= 22.18$, $SD = 5.58$).

Table-3

Gender difference on resilience, mental well-being and life satisfaction (N=440)

Variable		<i>M</i>	<i>SD</i>	<i>t</i>
Resilience	Male	169.0591	31.23634	.284
	Female	169.8727	28.77613	
Mental Well-Being	Male	50.1455	9.37726	.96
	Female	49.2682	9.77631	
Life Satisfaction	Male	22.1818	5.58240	2.19*
	Female	23.3818	5.88936	

* $p<.05$

Pearson's correlation coefficient analysis

In order to investigate the relationships among the variables, Pearson product moment correlation coefficient was used. Table 4 revealed significant positive correlation among resilience, mental well-being and life satisfaction

Table 4

Correlation Matrix for all study variable (N=440).

Variables	1	2	3
1. Resilience	1		
2. Mental well-being	.546**	1	
3. Life satisfaction	.145**	.412**	1

**Correlation is significant at the 0.01 level (2-tailed).

Simple linear regression analysis

In order to attain the third and fourth objectives simple linear regression analysis was employed. Table 5 shows the impact of resilience on mental well-being and life satisfaction. Result indicated that resilience significantly predicts 29.8% of the variability in mental well-being, where $R^2 = .298$, $F = 185.93$, $p < .001$ and resilience significantly predicts 2.1% of the variability in life satisfaction where $R^2 = .021$, $F = 9.36$, $p < .05$.

Table 5

Impact of resilience on mental well-being and life satisfaction (N=440)

Variable	β	R^2	F	t	p
Mental well-being	.546	.298	185.93	12.058	.000
Life satisfaction	.145	.021	9.36	6.06	.002

Discussion

The current research was intended to achieve four objectives. The first objective was to examine the gender differences on resilience, mental well being and life satisfaction. Results depicts that there were no significant gender differences in resilience and mental well being. The majority of the data support the gender similarities hypothesis (Hyde, 2014), which postulates that there are numerous psychological traits and systems that are fundamentally similar between men and women.

The results also showed that females had significantly higher life satisfaction than males. Higher female life satisfaction was found to be more common in a study by Matteucci

and Lima (2016) who examined the gender disparity in life satisfaction in 85 nations. One possible explanation for women's higher levels of life satisfaction is that they prioritize relationships and social support more highly than males do (Joshanloo & Jovanović, 2020).

The second objective was to investigate whether there is any relationship among resilience, mental well being and life satisfaction. Pearson product moment correlation was conducted to find out the correlation among resilience, life satisfaction and mental well being. Result showed significant positive correlation between resilience and life satisfaction. Our findings are consistent with the finding of Abiola and Udofia (2011), who found that resilience is positively correlated with life satisfaction among students.

Resilience was also found to be significantly positively correlated with mental well-being, indicating that increasing resilience will improve mental well-being. Our findings are also consistent with the findings of Smith et al. (2008), who observed that resilience is positively correlated with mental health outcomes such as high self-esteem, positive effects, and life satisfaction.

The third objective illustrated whether life satisfaction can be predicted by resilience. Simple linear regression was conducted which showed that resilience had a significant impact over life satisfaction as resilience worked as predictor. Our finding is matched with some other findings where resilience was found as a major predictor of life satisfaction (Cazan & Truta, 2015; Tagay et al., 2016).

Fourth objective illustrated whether mental well being can be predicted by resilience. Result showed that resilience predicted mental well being significantly which is consistent with some other studies where it has been found that resilience serves vital role in promoting and ameliorating individual's well-being (Souri & Hasanirad, 2011; Mayordomo et al., 2016; Gao et al., 2017).

Limitations of the study

This study has several limitations. First, simple random sampling used here; therefore it is cumbersome to know whether every participants is mentally sound for the test. Second, information was collected only from the universities situated in the southern part of Bangladesh; generalization over population would be perfect if it was possible to procure information from universities located in each region of Bangladesh.

Implications

From this study young adults get to know about developing resilience, it ameliorates life satisfaction of an individual and improves the condition of mental well being. Moreover, they get to know about the level of life satisfaction and mental well being and resilient individuals are more likely to have a sense of purpose and meaning in their lives. Having a sense of purpose can improve mental well-being and life satisfaction. Researcher of this

region can find a new genre of research interest regarding this study. Researchers can get idea how resilience makes impact over life satisfaction and mental well being following the findings of this study. Using this research, an idea can be assumed about university students' resilience, which will help them to assess themselves. Anyone can learn about the effect of resilience over life satisfaction and mental well being.

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Psychometric Validation of the Melbourne Decision Making Questionnaire in the Population of Bangladesh

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Abstract

Decision-making styles play an important role in overcoming everyday challenges we face. Therefore, it is essential to have a psychometrically sound assessment tool to assess decision-making styles we use. This study aimed to validate the Melbourne Decision Making Questionnaire (MDMQ) in Bangla language and cultural context, addressing the lack of available measures for assessing decision-making styles used by the Bangladeshi people. In this study, data were collected from a sample of 300 university students (age mean = 21.20 years) who were selected using the convenience sampling technique. Confirmatory factor analysis supported the four-factor correlated model, as found in the original study. Discrimination indices of items in both classical test theory and item response theory approaches suggested that items could effectively discriminate between low scorers and high scorers in each subscale. Differential item functioning test results showed no preference to specific gender. Each subscale significantly correlated with Big Five personality traits and life satisfaction. Overall, the results suggest the MDMQ Bangla as a psychometrically sound tool to assess decision-making styles used by Bangladeshi adults. This measure has practical utility for researchers and mental health practitioners, enabling a deeper understanding of decision-making styles among Bangladeshi people, their antecedent factors and impact on daily life.

Keywords: buck-passing, decision-making, hyper vigilance, procrastination, validation, vigilance

In our daily life, we encounter stubborn and stressful situations that necessitate different coping strategies. Making effective decisions, we can overcome these situations. We can be satisfied in our individual and social life if we ameliorate our decision-making skills

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(Filipe et al., 2020). Decision-making is an elective and applicative program that depends on an individual's norms and preferences from a number of substitute (Certel et al., 2013; Rilling & Sanfey, 2011), exploring substitute choices (Gonzalez & Dutt, 2016), examining and assessing a plenty of related facts (Kunsch et al., 2014), sorting out erratic conditions (Guelle et al., 2014), and finally comprising the best activity schemes (Donovan et al., 2015). It is a permanent characteristic that guides individuals in circumstances which requires decisions (Leykin & DeRubeis, 2010). Decision making skills improve our ability to make decisions about the situations that require selections, helping us to attain our destination with confidence (Baron, 2008). We use decision making skills as a coping mechanism to deal with stressful situations in our daily life activities (Isaksson et al., 2014). Siebert et al. (2020) suggest that proactive decision-making increases an individual's abilities, which in turn increases satisfaction with decisions and overall life satisfaction.

There are several measures for assessing decision-making styles, such as the Iowa Gambling Task (IGT: Bechara, 2007), the General Decision-Making Style (GDMS: Scott & Bruce, 1995), and the Melbourne Decision Making Questionnaire (MDMQ: Mann et al., 1997). Among these measures, the MDMQ is the most widely used and validated tool to assess decision making styles. The MDMQ is a reformulation of the Flinders Decision Making Questionnaire (FDMQ: Janis & Mann, 1977). This measure assesses four decision-making styles: vigilance, hypervigilance, buck-passing, and procrastination. Vigilance is an adaptive and the most efficient decision-making strategy (Bailly & Ilharragorry-Devaux, 2011; Isaksson et al., 2014). A vigilant decision maker is more rational, takes responsibilities to make decisions, examines decisions from several choices, and finally selects the most rational one (Cotrena et al., 2018; Ding et al., 2020; Janis & Mann., 1977). Hypervigilance, buck-passing, and procrastination are considered maladaptive decision making strategies (Isaksson et al., 2014). A hypervigilant decision maker experiences higher mental and emotional stress, has difficulty in intentness and ignore problems (Ding et al., 2020; Isaksson et al., 2014; Janis & Mann., 1977). A buck-passing decision maker ignores responsibilities by handing them over to others (Ding et al., 2020; Isaksson et al., 2014; Janis & Mann., 1977). An individual using the procrastination decision-making style avoids thinking and talking about the problems, escapes from unpleasant and important task (Ding et al., 2020; Cotrena et al., 2018; Isaksson et al., 2014).

Studies showed that our decision-making is influenced by our mental health, such as depression (Cotrena et al., 2018; Leykin et al., 2010; Masureik et al., 2014; Umeh & Omari-Asor, 2011; Yang et al., 2014) and anxiety (Hartley & Phelps, 2012; Leykin & DeRubeis, 2010; Masureik et al., 2014; Umeh & Omari-Asor, 2011). Masureik et al. (2014) revealed that as anxiety level increase, the probability of utilizing the hypervigilant and defensive avoidance decision-making styles will also increases among senior learners (Grade 10 – 12), although they usually habituate to the vigilant decision-making style. Anxiety not only offering problems in making decision but also affect thought processes (Lerner et al., 2004). Depressed individual also have less interest in future decision-making and can't bring to bear an efficient decision making process when necessary (Leykin &

DeRubeis, 2010). Effective decision-making and satisfaction with life are closely related (Filipe et al., 2020). Unproductive decision-making may lead to dissatisfaction with life (Bubić & Erceg, 2016), while satisfaction with life has positive association with vigilance decision making style (Deniz, 2006; Kamhalová et al., 2013) and negative association with buck-passing, procrastination, and hypervigilance decision-making styles (Deniz, 2006). Egocentric people have difficulty in productive decision making (Arocena et al., 2011), which may contribute to the development of neuroticism personality (Pitel & Mentel, 2017). Studies revealed that the vigilance decision-making style is positively associated with conscientiousness and openness personality traits and negatively associated with neuroticism, but neuroticism has a contradictory relation with buck-passing and hypervigilance (Deniz, 2011; Fabio, 2006; Halama & Gurnáková, 2014; Rahaman, 2014).

This MDMQ has been validated in different languages and cultures - Spanish (Heredia et al., 2004), French (Bailly & Ilharragorry-Devaux, 2011), Turkish (Colakkadioglu & Deniz, 2015), Flemish (Bouckenooghe et al., 2007), Slovak (Sarmany, 1999), Italian (Nota & Soresi, 2000), Russian (Kornilova, 2013), German (Tipandjan, 2010), Brazilian Portuguese (Cotrena et al., 2017), Swedish (Isaksson et al., 2014), Bangla (Rahaman, 2014), Colombia (Isaza et al., 2021), and Portuguese (Filipe et al., 2020). Although Rahman (2014) assessed the psychometric properties, the author performed item analysis and exploratory factor analysis only. Moreover, the author reported only internal consistency reliability and explained variances. Therefore, we intended to assess psychometric properties of the Melbourne Decision Making Questionnaire in detail in Bangladeshi population. The psychometric properties were assessed using both classical test theory and item response theory approaches.

Method

Participants

In the present study, a sample of 300 university students, all from the University of Chittagong, Chattogram-4331, Bangladesh, was selected via convenience sampling technique. Their mean age was 21.20 years with a standard deviation of 2.11. Among the participants, 150 (50%) were male and 150 (50%) were female. Additionally, 240 (80%) were brought up in nuclear family and 60 (20%) in extended family. In terms of reported socio-economic status, 282 (94%) were in the middle class and 152 (50.7%) were living in city areas, and 148 (49.3%) in village areas.

Procedure

For the forward translation, two bilingual experts (fluent in both English and Bangla) translated the MDMQ into Bangla. These translations were then merged into Bangla. Next, the translated Bangla version of the MDMQ was back translated into English by two other bilingual experts. These back translations were combined into one. Two experts compared the content of the original scale with back translated version to assess any discrepancies

in meaning. They suggested that both versions had the same contents, and there were no discrepancies in meaning. Next, the translated Bangla MDMQ was tested on a sample of 30 university students selected through a convenience sampling technique. The Cronbach's Alphas were ranged from .57 to .84 and the corrected item total correlations ranged from .09 to .83. Only item 15 had low item correlation (.09). Therefore, this item was examined again, and necessary modifications were made following the same forward-backward translation procedure. This scale was included in the final study.

Measures

In the present study, the questionnaire booklet included the Melbourne Decision Making Questionnaire (MDMQ: Mann et al., 1997) Bangla (translated in the present study), the Big Five Personality Inventory-10 (Rammstedt & John, 2007; Bangla version: Ahmed & Hossain, 2020), and the Satisfaction with Life Scale (SWLS: Diener et al., 1985) in Bangla (Jesmin, n.d.), along with a demographic information form covering age, gender, family type, socio-economic status, and current residence areas.

Melbourne Decision Making Questionnaire (MDMQ)

The Melbourne Decision Making Questionnaire (MDMQ: Mann et al., 1997) comprised 22 items and four subscales. Vigilance ("When making decisions, I like to collect a lot of information") and Buck-passing ("I prefer to leave decisions to others") included six items each, and Procrastination ("When I have to make a decision, I wait a long time before starting to think about it") and Hypervigilance ("After a decision is made, I spend a lot of time convincing myself it was correct") included five items each. Participants responded to each item using a three-point Likert-type scale, ranging from 'not true for me' (0) to 'true for me' (2). The total score can range between 0 to 44. In the present study, the MDMQ was translated into Bangla from English following the forward-backward translation procedure (described in the Procedure subsection).

Big Five Personality Inventory-10 (BFPI-10)

The Big Five Personality Inventory-10 (BFI-10) is a self-reported brief measure for quick assessment of the Big Five personality traits. This inventory contains 10 items, and each trait assessed by two items. Participants responded to each item using a five-point Likert-type scale, ranging from 'Strongly Disagree' (1) to 'Strongly agree' (5). Total scores ranged between 2 and 10 for each trait. The authors reported acceptable reliability and validity of this measure (Ahmed & Hossain, in press; Costa & McCrae, 1992). In the present study, inter-item correlations of the subscale were sufficient, ranged between .19 and .55 (Pallant, 2016). Confirmatory factor analysis also showed that this inventory had good model fits ($\chi^2 = 24.05$, $df = 25$, $p = .52$, $CFI = 1.00$, $TLI = 1.00$, $RMSEA = .00$, $SRMR = .08$).

Satisfaction with Life scale (SWLS)

SWLS is a five-item measure for assessing life satisfaction. Participants responded to each item of this scale using a seven-point Likert-type scale, ranging from 'Strongly Disagree'

(1) to 'Strongly agree' (7). The total score ranged from 5 to 35. A score of 20 indicated a neutral position that was neither life satisfaction nor dissatisfaction. Scores below 20 suggested dissatisfactions with life, and scores above 20 suggested satisfactions with life. This measure was found suitable for use with different age groups (Diener et al., 1985). In the present study, this scale has acceptable internal consistency reliability ($\alpha = .75$). Confirmatory factor analysis also showed that this inventory acceptable good model fits ($\chi^2 = 16.36$, $df = 5$, $p = .01$, $CFI = .97$, $TLI = .94$, $RMSEA = .09$, $SRMR = .07$).

Statistical Analysis

IBM SPSS version 25, RStudio 2023.06.2, and jMetrik were used to analyze the data. The psychometric properties of the MDMQ-Bangla were examined using both classical test theory (CTT) and item response theory (IRT) approaches.

In CTT, item analysis (Corrected item-total correlation, Cronbach's Alpha) and confirmatory factor analysis were performed. In IRT, the Graded Response Model (GRM) was utilized, as this model is suitable for Likert-type polytomous items. Before running the GRM, assumptions (unidimensionality, local dependence, and monotonicity) were examined. Next, item fits ($S-\chi^2$) were examined. In GRM, slope and threshold parameters were examined. In addition, differential item functioning (DIF) bias between males and females were examined. Finally, Pearson Product-Moment correlation coefficient was performed to assess the correlation between decision making styles, personality traits, and life satisfaction.

Ethics

This study was carried out following the Declaration of Helsinki and its later amendments or comparable ethical standards. The Ethical Review Committee of the Department of Psychology, University of Chittagong, Bangladesh approved this study (ERB-PSY-CU-24-2021).

Results

Table 1 presents the descriptive statistics and item-level psychometric properties of the Melbourne Decision Making Questionnaire (MDMQ). The skewness (ranges between -1.35 to .90) and kurtosis (ranged between -1.12 to .66) values were between the recommended ranges by Kim (2013), which suggested the normality of the data.

Classical test theory approach

Item analysis results (Table 1) demonstrated that all items had a higher corrected item-total correlation (<.20; Kline, P. 1986). These values ranged between .47 and .58 for the Vigilance subscale, between .33 and .58 for the Buck-passing subscale, .25 and .51 for the Procrastination subscale and .36 and .47 for the Hypervigilance subscale). Only item 12 of

the Buck-passing subscale had a low corrected item total correlation ($>.20$). Therefore, this item was excluded in subsequent analysis.

Table 1

Item level psychometric properties of the Bangla version of Melbourne Decision Making Questionnaire.

Items	M	Skewness	Kurtosis	CITC	Factor loading
Vigilance					
Item 1	1.42	-.45	-.67	.56	0.63
Item 2	1.32	-.34	-.65	.47	0.53
Item 3	1.72	-1.35	.66	.51	0.56
Item 4	1.44	-.78	-.51	.58	0.64
Item 5	1.52	-.87	-.24	.56	0.69
Item 6	1.45	-.70	-.49	.54	0.64
Buck-passing					
Item 7	.50	.70	-.24	.33	0.48
Item 8	1.03	-.04	-1.10	.44	0.51
Item 9	.69	.58	-.10	.58	0.74
Item 10	.77	.41	-1.12	.54	0.72
Item 11	1.31	-.42	-.73	.42	0.39
Item 12	1.67	-1.38	.96	.19	
Procrastination					
Item 13	1.23	-.35	-.97	.43	0.42
Item 14	.95	.07	-.90	.51	0.58
Item 15	1.30	-.47	-.85	.30	
Item 16	.88	.17	-.98	.42	0.66
Item 17	.47	.87	-.22	.25	0.47
Hypervigilance					
Item 18	.85	.23	-1.00	.38	0.60
Item 19	.71	.51	-.99	.36	0.52
Item 20	1.11	-.07	-.42	.40	0.44
Item 21	1.19	-.32	-1.11	.36	0.48
Item 22	1.11	-.17	-.10	.47	0.49

CITC = corrected item-total correlation.

Table 2 presents the scale level psychometric properties of the MDMQ Bangla. Confirmatory factor analysis (CFA) results show that the four-factor correlated model of the MDMQ Bangla had good model fits ($\chi^2 = 290.51$, $df = 183$, $p < .01$, CFI= 0.96, TLI=

0.95, RMSEA= 0.04, SRMR= 0.07). However, factor weights showed that item 15 had a low factor weight (.25). This item was excluded, and CFA run again. The revised model also had good model fits ($\chi^2 = 209.51$, df = 164, p = .01, CFI= 0.98, TLI= 0.98, RMSEA= 0.03, SRMR= 0.06) (Table 2 and Figure 1). Results in Table 2 also demonstrated that subscales of the MDMQ Bangla had acceptable internal consistency reliabilities (between 0.60 and 0.70; Kline, P. 2015) (alpha ranged between 0.63 and 0.78, omega ranged between 0.64 and 0.79). The mean inter-item correlations for subscales were also within the recommended range, ranging from 0.25 to 0.38 (.20 - .40; Briggs & Cheek, 1986). Standard error of measurement scores being below half of the respective subscales' standard deviation suggest that the test scores are relatively precise and the observed scores are close to the true scores with minimal error.

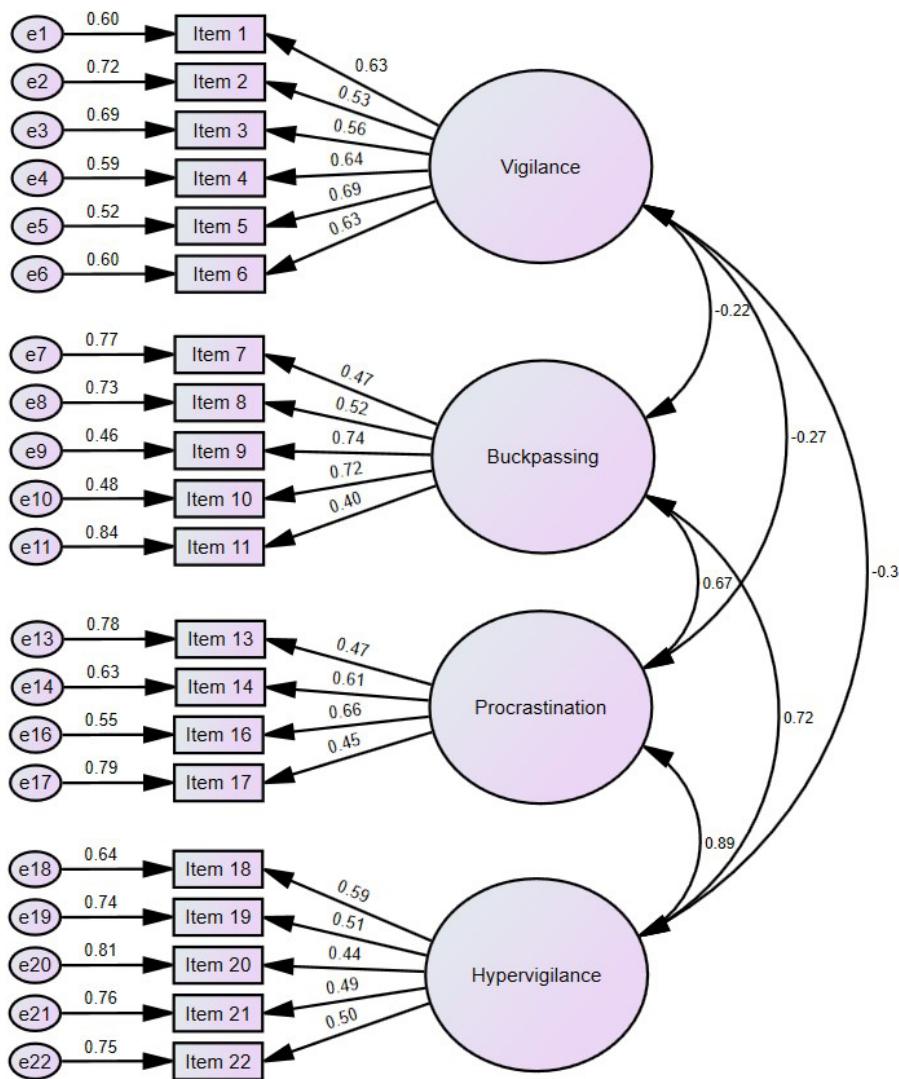
Table 2

Scale level psychometric properties of the Bangla version of Melbourne Decision Making Questionnaire.

	Vigilance	Buck-passing	Procrastination	Hypervigilance	Suggested cut off
Alpha	0.78	0.71	0.63	0.64	≥ 0.7
Omega	0.79	0.72	0.61	0.64	≥ 0.7
Mean inter-item correlation	.38	.32	.28	.26	Between .15 to .50
Standard error of measurement	1.16	1.25	1.13	1.35	Smaller than SD/2
Model fits of confirmatory factor analysis					
χ^2 (df, p value), χ^2/df	209.51 (164,.009), 1.28			Nonsignificant	
CFI	0.98			>.95	
TLI	0.98			>.95	
RMSEA	0.03			<.08	
SRMR	0.06			<.08	

Figure 1

Confirmatory Factor Analysis of the Melbourne Decision Making Questionnaire (First order model).



Item response theory approach

Table 3 and Supplementary Table 1 demonstrate the results from the item response theory approach. Supplementary Table 1 shows that vigilance and buck-passing had moderate unidimensionality, while the rest of the two subscales had weak unidimensionality. Regarding local dependence, p-values (adjusted for false discovery rate) for residual

correlations of all the items were above .05. These nonsignificant p-values suggested that there was no violation of the local dependence assumptions. Regarding monotonicity, there were no significant violations of monotonicity. These results showed that all the IRT assumptions were met. Item fit statistics (Table 3) shows that all $S-\chi^2$ values were not significant. These results suggested that items belonged to their respective subscales.

Table 3

IRT item fits, slop, threshold outputs of the MDMQ Bangla

Items	Item fits			Slop parameter (a)	Threshold parameter (b)	
	S- χ^2	Df	P value		b_1	b_2
Vigilance						
Item 1	2.98	4	.56	1.91	-2.21	0.10
Item 2	6.51	6	.37	1.44	-2.21	0.37
Item 3	6.66	5	.25	1.96	-3.10	-0.83
Item 4	7.81	5	.17	2.11	-1.64	-0.11
Item 5	5.57	4	.23	1.95	-2.09	-0.26
Item 6	3.44	5	.63	1.77	-2.08	-0.09
Buck-passing						
Item 7	12.47	9	.19	1.03	0.34	2.85
Item 8	12.45	9	.19	1.16	-1.21	1.02
Item 9	2.78	7	.90	2.62	-0.06	1.14
Item 10	11.74	7	.11	2.32	-0.25	1.09
Item 11	13.70	8	.09	1.07	-2.38	0.36
Procrastination						
Item 13	3.41	5	.77	1.07	-1.83	.54
Item 14	4.61	4	.77	2.70	-.73	.95
Item 16	2.54	5	.77	1.31	-.77	1.41
Item 17	4.82	5	.77	.86	.46	3.70
Hypervigilance						
Item 18	6.68	8	.53	1.07	-0.78	1.66
Item 19	8.19	9	.52	1.01	-0.22	1.92
Item 20	7.01	8	.54	1.23	-1.83	1.15
Item 21	13.77	8	.09	1.16	-1.52	0.50
Item 22	6.23	8	.62	1.82	-1.17	0.65

Table 3 also presents the slope and threshold parameters of the subscales. Concerning the vigilance subscale, item 2 had a high slope (1.45), and the rest of the items had a very high slope parameter (1.77 – 2.11). These items provide sufficient information about latent

traits. Item 1 and item 2 were more difficult compared to the rest of the items in which a higher latent trait or theta is required to endorse response option 'True for Me'. Regarding the buck-passing subscale, item 7, 8, and 11 had a moderate slope parameter (1.03 – 1.16), and the other two items had a very high slope parameters (2.32 – 2.62). Item 9 and 10 provide more information about the latent traits compared to the items with a moderate slope parameter. Item 7 required a higher latent trait or theta to endorse this item compared to the rest of the items 'Sometimes True'. Regarding procrastination, item 13, 16, and 17 had a moderate slope parameter and provided sufficient but less information than item 14 (.86 – 2.70). Item 17 required a higher latent trait or theta to endorse this item compared to the rest of the items 'Sometimes True'. About the hypervigilance subscales, all the items had a moderate slope parameter except item 22 (1.01 – 1.82). All the items required a higher latent trait or theta to endorse the response option 'True for Me'. The scale information curve (SIC) (Figure 2) shows that vigilance subscales provide more information about latent traits or theta compared to other subscales. Table 4 shows the DIF contrasts of the MDMQ scale between males and females. Non-significant Mantel-Haenszel χ^2 values suggest the absence of DIF bias in all the items. None of the items of the MDMQ Bangla has a preference to any specific gender.

Figure-2

Scale Information curves of the Buck passing, Hyper vigilance, Procrastination and Vigilance subscales of the MDMQ-Bangla.

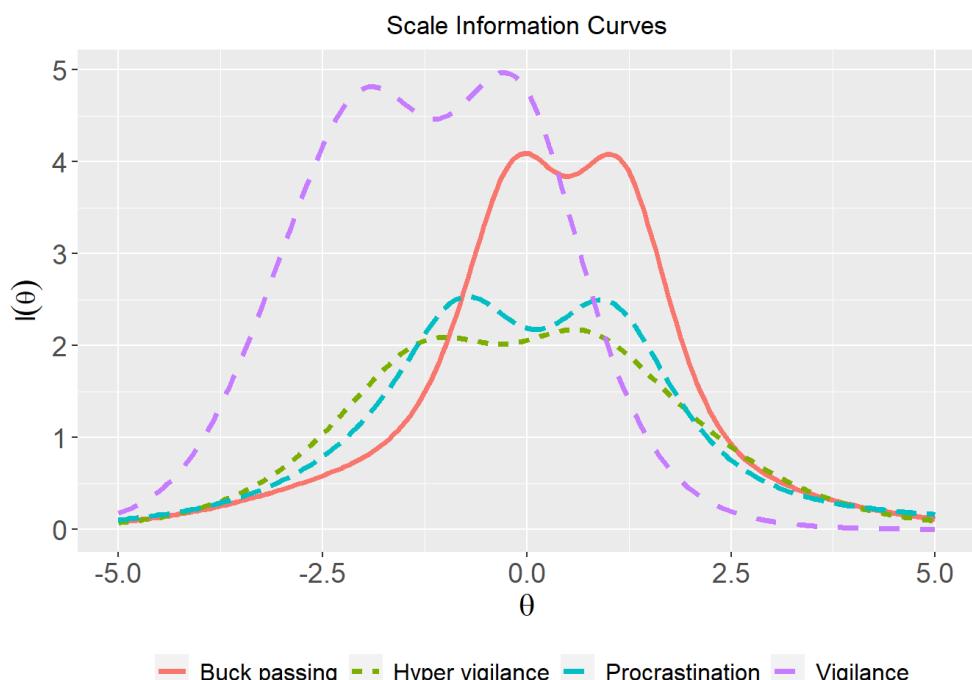


Table 4*Differential Item Functioning Statistics of this scale between male and female group*

Vigilance		Buck passing		Procrastination		Hyper vigilance	
Items	M-H χ^2 (p)	Items	M-H χ^2 (p)	Items	M-H χ^2 (p)	Items	M-H χ^2 (p)
Item 1	.55 (.46)	Item 7	1.05 (.31)	Item 13	5.37 (.02)	Item 18	3.98 (.05)
Item 2	2.48 (.12)	Item 8	.05 (.86)	Item 14	2.51 (.11)	Item 19	2.98 (.08)
Item 3	.50 (.48)	Item 9	.00 (.96)	Item 16	.68 (.41)	Item 20	2.48 (.12)
Item 4	.20 (.65)	Item 10	1.15 (.28)	Item 17	.06 (.81)	Item 21	.62 (.43)
Item 5	.18 (.67)	Item 11	.03 (.87)			Item 22	.16 (.69)
Item 6	.24 (.62)						

M-H χ^2 : Mantel-Haenszel χ^2

Reference group= Male; Focal group= Female

Correlation analysis results (Supplementary Table 2) showed that vigilance had a significant negative association with the other three scales (between $r = -.14$ and $r = -.23$). Buck-passing, procrastination, and hypervigilance were also positively and significantly correlated with each other (between $r = .47$ and $r = .58$). Table 5 also shows the associations of MDMQ's subscales with personality traits and life satisfaction. Vigilance has a significant positive association with agreeableness, conscientiousness, openness, and life satisfaction (ranged between $r = .13$ and $r = .29$), and a significant negative association with neuroticism ($r = -.30$). Buck passing has a significant negative correlation with extraversion, agreeableness, conscientiousness, openness and satisfaction with life (ranged between $r = -.13$ and $r = -.32$), and a significant positive correlation with neuroticism ($r = .38$). Table 5 also shows that procrastination has a significant negative correlation with extraversion, agreeableness, conscientiousness, openness, and satisfaction with life (ranged between $r = -.23$ and $r = -.39$) and a significant positive correlation with neuroticism ($r = .37$). Hypervigilance has a significant negative correlation with extraversion, agreeableness, conscientiousness, openness, and satisfaction with life (ranged between $r = -.19$ and $-.36$) and a significant positive correlation with neuroticism ($r = .45$). These results suggest the convergent validity and concurrent validity of the MDMQ Bangla.

Table 5

Correlations of the subscales of MDMQ Bangla to Big Five Personality Traits and Life Satisfaction

Sub-scales	Vigilance	Buck-passing	Procrastination	Hypervigilance
Extraversion	.09	-.23**	-.24**	-.19**
Agreeableness	.20**	-.20**	-.33**	-.31**
Conscientiousness	.13*	-.32**	-.39**	-.30**
Neuroticism	-.30**	.38**	.37**	.45**
Openness	.29**	-.34**	-.39**	-.36**
Life satisfaction	.20**	-.13*	-.23**	-.25**

*p<.05, **p<.01

Discussion

The Melbourne Decision Making Questionnaire (MDMQ; Mann et al., 1997) is one of the most used scales for assessing decision-making styles across different cultures. In the present study, psychometric properties of the MDMQ were examined using both classical test theory and item response theory approaches, as there was a lack of validated assessment tool for assessing decision making styles of Bangladeshi young adults. Results showed that all items, except item 12, had good item discrimination indices. Good item discrimination indicates that these items were able to differentiate between low scorers and high scorers in decision-making styles' subscales. Among the subscales, items in the vigilance and buck-passing subscales had higher corrected item-total correlation than those in the procrastination and hypervigilance subscales. Cotrena et al. (2018) found a similar pattern of item discrimination indices in the Brazilian version of the MDMQ. A lower discrimination index would be due to the cultural and language differences in meaning. Future studies will be needed to explore the discrepancy.

The confirmatory factor analysis results showed good model fits for the four factors first-order model of the MDMQ Bangla version. The four-factor structure of the MDMQ Bangla version is consistent with the original study (Mann et al., 1997) and other validated versions (e.g., Cotrena et al., 2018; Isaksson et al., 2014). However, item 15 had a low factor loading and excluded from the model. Item 15 was about taking a long time before starting to think. Social desirability bias could be a reason for lower factor loading of this item. We have an innate tendency to present ourselves as an ideal one. Being an ideal, this item would be responded to in a different pattern compared to the rest of the items in the procrastination subscale.

Results regarding internal consistency reliability showed that the MDMQ Bangla version had good internal consistency reliability. Most studies in other cultures and languages found good internal consistency reliability and a split half reliability for the MDMQ subscales and the full scale (e.g., Cotrena et al., 2017; Filipe et al., 2020; Mann et al., 1997). However, the internal consistency reliability of the procrastination and hypervigilance subscales was lower than the commonly suggested cutoff value (.70). The procrastination subscale had four items and the hypervigilance subscales had five items. Lower internal consistency reliability would be due to the shorter length of the subscales. The lower but acceptable reliability of procrastination and hypervigilance were consistent with the previous studies (e.g., Cotrena et al., 2018; Isaza et al., 2021).

One of the significant strengths of this present study is that the psychometric properties of the MDMQ-Bangla were assessed through an IRT model (graded response model [GRM]). The GRM model was selected due to its high suitability for polytomous response items. To the best of the authors' knowledge, this is the first study that assessed the psychometric properties of the MDMQ using an IRT approach. Results showed that the MDMQ Bangla version performed adequately to assess the decision making styles of the Bangladeshi people. Moderate to very high slope parameters suggested that all items provided sufficient information about the respective decision making styles. Majority of the items in the vigilance subscale needed a lower threshold endorsement compared to the items in three other subscales. This subscale is more efficient to discriminate people using lower level of vigilance decision making styles. As this decision-making style is a positive decision-making style and the rest of three are negative decision-making styles, therefore, lower difficulty level of vigilance subscale compared to other subscales is expected. SIC suggested that vigilance subscale provide more information about the latent trait. However, SIC also suggested that procrastination and hypervigilance subscales provided relatively lower information about the latent traits. As these are negative decision-making styles and also socially undesirable, therefore, it might be related to lower information compared to the vigilance subscale. Differential item functioning test results also explored the absence of item response bias between males and females. It is also another strength of the present study.

Results regarding the correlation among subscales revealed the convergent validity of the MDMQ Bangla version. This finding is consistent with previous studies (e.g., Cotrena et al., 2018; Mann et al., 1997). Moreover, lower to moderate correlation between personality traits and MDMQ subscales, lower but significant correlations between life satisfaction and MDMQ subscales showed the concurrent validity of the MDMQ-Bangla. This result indicates that people with extraversion, agreeableness, conscientiousness, and openness personality pattern may choose vigilant decision making style than other type of decision making styles, whereas neuroticism personality prefers buck-passing, procrastination and hypervigilance decision making style. The findings of the relation between personality traits and MDMQ are supported by previous studies (Bayram & Aydemir, 2017; Riaz et

al., 2012; Tamir & Robinson., 2004; Wood, 2012). Satisfaction with life depends on an individual's judgment ability to achieve personal goals (Diener et al., 1985) and was found to be correlated with decision making. In fact, invalid decisions forecast negative affect and dissatisfaction with life (Bubić & Erceg, 2016). Vigilance is associated with active emotional regulation, increased well-being, and therefore satisfaction with life (Kamhalová et al., 2013) and it is said that vigilance is the most significant predictor of life satisfaction (Bahadir & Certel, 2013).

Limitations and future directions of the Study

Nevertheless, the present study evolved a reliable and valid Bangla version of Melbourne Decision Making Questionnaire (MDMQ). However, there were several limitations. Firstly, the current data were collected via a convenience sampling method and from students. It would be more feasible if we could collect data from various categories. A future study should include a representative sample from all socio-demographic groups. Therefore, this future study would be well informed about the measurement invariance of MDMQ Bangla among different groups, making it more robust measure for assessing decision making styles of the Bangladeshi people. Secondly, the data in the present study was self-reported, which would be subjected to social desirability bias. Despite the above limitations, the Bangla MDMQ version has excellent psychometric properties to assess the different types of decision making styles (vigilance, buck-passing, procrastination, and hypervigilance) among the Bangladeshi culture. As Bangla MDMQ provides a quick assessment of decision making styles, it would be helpful for mental health professional to assess several decision making styles of an individual.

Conclusion

The present study demonstrated that the MDMQ Bangla version has satisfactory psychometric properties in both classical test theory and item response theory approach. This measure has acceptable internal consistency reliability, a satisfactory discrimination index, construct validity, convergent, and concurrent validity. The MDMQ Bangla version would be helpful for researchers and other potential users, including mental health practitioners to learn more about decision making styles of Bangladeshi people and its antecedents' factors, and impact on daily life.

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Appendices

Supplementary Table 1

H coefficients, monotonicity, local dependence outputs of THE Bangla-MDMQ

	H coefficients	Monotonicity			Local dependence G ² p values					
		#ac	#vi	#zsig	Item1	Item2	Item3	Item4	Item5	Item6
Vigilance										
Item1		4	0	0						
	.46									
Item2		6	0	0	.61					
Item3		6	0	0	.99	.65				
Item4		4	0	0	.94	.99	.94			
Item5					.94	.99	.61	.94		
		4								
		0								
		0								
Item6		6	0	0	.94	.61	.65	.94	.99	
Buck-passing					Item7	Item8	Item9	Item10	Item11	
Item7		4	0	0						
Item8		6	0	0	.55					
Item9		6	0	0	.14	.55				
Item10		6	0	0	.55	.55	.72			
Item11		12	1	0	.54	.34	.47	.55		
Procrastination					Item13	Item14	Item16	Item17		
Item13		12	0	0						
Item14		12	0	0	.54					
Item16		12	0	0	.29	.29				
Item17		6	0	0	.76	.81	.39			
Hypervigilance					Item18	Item19	Item20	Item21	Item22	
Item18		6	0	0						
Item19		6	0	0	.78					
Item20		6	0	0	.87	.87				
Item21		6	0	0	.87	.87	.87			
Item22		6	0	0	.78	.23	.87	.23		

Supplementary Table 2*Correlations among the subscales of Bangla-MDMQ.*

	Buck passing	Procrastination	Hypervigilance
Vigilance	-.14*	-.23**	-.21**
Buck passing		.46**	.49**
Procrastination			.57**

* $p=.05$, ** $p=.01$

Psychology in Bangladesh: Progress, Prospects, and Challenges

Abdul Khaleque¹, Muhammad Kamal Uddin² and Ashif Mahmood³

Abstract

While existing documentation on the history of Psychology in Bangladesh provides some insights, it often lacks a comprehensive and current perspective on the discipline's progress, prospects, and challenges. This paper aims to address these gaps by offering a thorough and up-to-date overview of Psychology's development in Bangladesh, from its early 20th-century origin to its present state. It examines the development of Psychology through the historical contexts of British India, Pakistan, and modern Bangladesh, which are shaped by various socio-political, cultural, educational, and psychosocial factors. The paper is based on an extensive review of literature and insights from key stakeholders across various institutions to evaluate the early foundations of Psychology education, research, and practice in Bangladesh. It highlights significant milestones, the contributions of pioneering figures, and the progress of academic programs while addressing the challenges of integrating Psychology within the country's sociocultural context. The paper also explores future opportunities for growth in areas such as mental health awareness, policy development, professional training, and the broader application of Psychology in fields like recruitment, licensing, forensic assessment, etc. Despite notable progress, Psychology in Bangladesh continues to face challenges, including inadequate infrastructure, limited funding, insufficient professional recognition, and cultural stigmas surrounding mental health. The paper concludes with strategic recommendations for overcoming these barriers and promoting a more robust and inclusive development of Psychology in Bangladesh, aligning with global standards and local needs.

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Origin and History of Psychology in East Bengal

Psychology began in the first quarter of the 20th century as an academic discipline in the then East Bengal (now Bangladesh), since the inception of the University of Dhaka in 1921, when this region was a part of undivided India under British rule. The University of Dhaka established a Psychology Laboratory in the Department of Philosophy headed by Professor G. H. Langley, the first Psychology laboratory in East Bengal and the second such laboratory in the entire undivided India (University of Dhaka Annual Report, 1921-1922). At first, this laboratory was located in three rooms on the ground floor of the central building of the University of Dhaka (at present, Dhaka Medical College). Then, in 1923, the Psychology laboratory was moved to Curzon Hall (the Science Faculty Building of the University of Dhaka). It is worth noting that the University of Calcutta (now Kolkata) established a Department of Psychology in 1916, becoming the first university in India to start an independent Department of Psychology. Thus, in the first quarter of the 20th century, the University of Calcutta and the University of Dhaka pioneered Psychology's birth and growth as a science and profession in undivided India (Singh, 1984).

During the initial stage of Psychology's development, there was close cooperation between the University of Dhaka and Calcutta University. For instance, Professor Sen Gupta (the then Head of the Department of Psychology of Calcutta University) and Professor Haridas Bhattacharya (the then Head of the Department of Philosophy of the University of Dhaka) were engaged in a close productive collaboration to ensure the development of Psychology (Bose, 1991). As a result, in June 1926, Mr. Sudhir Kumar Bose, a Laboratory Assistant at the Psychology Department of Calcutta University, was spared and lent to the Department of Philosophy of the University of Dhaka. Mr. Sudhir Kumar Bose joined the Department of Philosophy of the University of Dhaka as a Junior Lecturer, and he assisted Professor Haridas Bhattacharya (the then Head of the Department of Philosophy of the University of Dhaka) in equipping the Psychology laboratory (University of Dhaka Annual Report, 1927). Therefore, within a short period, the University of Dhaka Psychology Laboratory earned the recognition and reputation as one of the oldest and best-equipped psychological laboratories in the Indian subcontinent (Marx and Hillix, 1973).

Since the development of Psychology in Bangladesh mainly revolves around the establishment of Psychology departments in different universities, a brief overview of the history of Psychology in these institutions is given below:

Psychology Department at the University of Dhaka

As noted earlier, Psychology started its journey in East Bengal (present Bangladesh) as an academic discipline at the University of Dhaka, since the inception of the University in 1921. At the University of Dhaka, Psychology was initially formed as a part of the philosophy department, and it lasted for about 44 years (1921-1965). Professor G. H. Langley was the founder Head of the Department of Philosophy. In 1960, the Department of Philosophy was renamed as the 'Department of Philosophy and Psychology', headed

by Professor Ghulam Jilani. Professor Jilani left the University of Dhaka and joined the University of Punjab, Lahore, where he opened the Department of Applied Psychology in 1962. After the departure of Professor Jilani, Professor G.C. Dev became the Head of the Department of Philosophy and Psychology at the University of Dhaka. The task of teaching Psychology at that time was entrusted to Dr. Abdur Rahman and Mr. B. Anam Khan. In the session of 1960-61, the M. A. course in Psychology was introduced for the first time in the Department of Philosophy and Psychology at the University of Dhaka. The faculty strength of Psychology increased when Mr. Oscar V. Rouck (USA) joined the Department in the 1961-1962 session. The faculty strength of the Department further increased when some other renowned scholars joined the Department in the 1962-63 session, including among them Mrs. Linda Rouck, and Mrs. Vallery as full-time teachers and Dr. M.K. Ali as a part-time teacher. Moreover, Mr. H. Schuman of the University of Harvard also joined the Department in the 1962-1963 session as a visiting teacher (BPA Proceedings, 1980).

The introduction of child Psychology into philosophy in 1940 marked a shift towards applying psychological principles to child development. Despite these advancements, Psychology's infancy within philosophy constrained its growth as an independent scientific discipline (Begum, 2021).

Psychology became an independent department in 1965 with Dr. M. F. Zaman as its first Head of the Department. In 1967, a 3-year B. Sc. (Honors) program was started. The master's degree program was further strengthened with the opening of advanced courses in Industrial and Organizational Psychology, Clinical Psychology, and Educational and Counselling Psychology. Later, the graduate program was further expanded with the introduction of M. Phil. and Ph. D. Programs. However, in 1997, the Department of Clinical Psychology and in 2011, the Department of Educational and Counseling Psychology became independent departments.

The development of the M.A. and M.Phil. programs in Clinical Psychology at the University of Dhaka was initiated by Professor Anisur Rahman, who collaborated with Professor G. Powell and other international experts to create a robust curriculum tailored to the needs of Bangladesh. This initiative was designed to address the increasing demand for mental health professionals capable of dealing with a wide range of psychological issues. The eligibility criteria for these programs required applicants to have an undergraduate honors degree in Psychology from a recognized institution, ensuring that candidates had a solid academic foundation before undertaking advanced clinical training.

In addition to Clinical Psychology, the University of Dhaka also played a key role in introducing specialized training in Educational Psychology. In 2005, the university launched a Master's program followed by an M.Phil. course, which was supported by faculty and a UK-based educational psychologist. This program focused on the psychological aspects of education, equipping students with the tools to address learning challenges, educational assessments, and interventions for students with special needs. Professor Anisur Rahman,

already a significant figure in Clinical Psychology, also contributed to this initiative's success, leveraging his expertise to shape the Educational Psychology curriculum.

The momentum created by these programs was further accelerated in 2009 by incorporating Counselling Psychology into the academic offerings. This addition reflected the growing recognition of the need for specialized counseling services in various contexts, including schools, workplaces, and community settings. By 2011, these efforts culminated in establishing a dedicated Department of Educational and Counseling Psychology at the University of Dhaka. This department became a hub for research and training in counseling Psychology, while other universities in Bangladesh continued to offer similar courses as part of their broader Psychology programs.

In 1974, the Department of Psychology was placed under the Faculty of Science, because of the persistent efforts of Dr. M. R. Ali, a renowned experimental psychologist and the then Chairman of the Psychology Department. Later, in 1982, Psychology was placed under the Faculty of Biological Sciences. The Department of Psychology is concurrently offering three master's Programs—One-Year M.S. in Psychology, and One-and-Half-Year Professional M.S. in School Psychology and Industrial-Organizational Psychology. A two-year M. Phil. and three-year Ph.D. degrees are also offered in the Department. Since 1972, the Department has been annually publishing a journal named the 'Dhaka University Journal of Psychology'.

From the year 2024, under the special initiative of Dr. Md. Kamal Uddin (Chairman of the Department of Psychology, University of Dhaka from 2021 to 2024), students of other disciplines are also being allowed to take part in MS in Psychology and Professional MS in Psychology by taking the admission test in the Department of Psychology of the University of Dhaka. Students come to study Psychology from various disciplines such as Philosophy, Geography and Environment, Economics, Sociology, Education and Research, etc. Professionals are also found to pursue MS here as there is no age limitation or professional boundary; hence, the course admits learners, including Doctors, Teachers, Bankers, Corporates, Businessmen, etc. enabling a multidisciplinary flavor. It is a pioneering and groundbreaking step in Bangladesh's Psychology history. More information about the recent development of Psychology at different universities is given in the following sections.

Psychology Department at the University of Rajshahi

The first independent Department of Psychology in Bangladesh was established at the University of Rajshahi in 1956. Professor S. M. Moghni was the founder Head of the Department of Psychology at the University of Rajshahi. Initially, the Department of Psychology at the University of Rajshahi began its teaching program at the master's degree level and B.A./B.Sc. (Honors) course in Psychology was introduced in 1963.

In 2015, the Department of Clinical Psychology was established, initially under the Faculty of Life and Earth Science, and later becoming part of the Faculty of Biological

Sciences. This department offered a four-year B.Sc. Honors degree aimed at developing Clinical Psychology professionals equipped to meet the mental health needs of the country.

In 2018, the department expanded its offerings to include a one-year master's program, supplemented with a six-month internship designed to provide practical, hands-on experience in clinical settings. Recognizing the need for more in-depth training, the program duration was extended to one and a half years from the 2020–2021 academic session, providing students with greater opportunities to engage in research and clinical practice.

Psychology Department at the University of Chittagong

The Department of Psychology at the University of Chittagong, established in 2005 under the Faculty of Biological Sciences, offers a comprehensive range of programs, including a four-year Bachelor's Honors, one-year Master's, two-year MPhil, and three-year PhD. With around 200 students enrolling annually, the department provides a wellrounded curriculum that balances theory and practical application. Supported by 18 faculty members, the department plays a vital role in advancing both academic and professional Psychology education in Bangladesh.

Psychology Department at Jagannath University

The Department of Psychology at Jagannath University, originally part of Jagannath College, was established as an independent department in 1966. It was initially offering a two-year B.Sc. Pass course, the department expanded significantly with the introduction of its first M.Sc. course in 1986. A significant milestone came in the 2002–2003 academic session with the launch of the Bachelor's Honors Degree, further solidifying its status as a full-fledged department. Since 2005–2006, the department has offered a four-year B.Sc. program and a one-year M.Sc. program. In 2011, the department launched the Jagannath University Journal of Psychology, furthering its academic contributions. With around 360 students enrolled across various programs, including specializations in Clinical and Counselling Psychology, Educational and Developmental Psychology, and Industrial and Organizational Psychology, the department continues strengthening its impact on Psychology education and research in Bangladesh.

Psychology Department at the National University

The establishment and growth of Psychology as an academic discipline in colleges across Bangladesh, particularly under the National University, highlight its increasing prominence in higher education. Rajshahi College led the way by introducing an honors course in Psychology in 1972, followed by a master's final course in 1992. In the private sector, Sheikh Burhanuddin College in Dhaka launched an honors course in 1995-96 and a master's course in 1996-97. Today, Psychology honors programs are offered in over 50 public and private colleges affiliated with the National University, with master's programs available in 10 colleges, including six government and four private institutions. This expansion reflects the growing demand for psychological education and its importance in various sectors.

Table 1

Distribution by Division of 50 Affiliated Colleges of National University where Psychology is taught at Bachelor's level

Sl.	Divisions	No of Colleges
1.	Dhaka	11
2.	Chattogram	3
3.	Rajshahi	22
4.	Khulna	4
5.	Sylhet	1
6.	Barishal	0
7.	Rangpur	4
8.	Mymensingh	5

Table 2

Distribution by Division of 50 Affiliated Colleges of National University where Psychology is taught at Master's level

Sl.	Divisions	No of Colleges
1.	Dhaka	3
2.	Chattogram	2
3.	Rajshahi	2
4.	Khulna	1
5.	Sylhet	1
6.	Barishal	0
7.	Rangpur	1
8.	Mymensingh	0

Table 3

Affiliated Colleges of the University of Dhaka where Psychology is taught at Bachelor's and Master's levels

Sl.	Name of the Colleges
1.	Dhaka College
2.	Eden Mohila College
3.	Begum Badrunnesa Govt. Girls College
4.	Govt. Titumir College

Psychology Department at the Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj

The Department of Psychology at Bangabandhu Sheikh Mujibur Rahman Science and Technology University officially began its journey in 2018 by introducing a 4-year B.Sc. (Honors) program. This milestone was achieved through the persistent efforts of Dr. Muhammad Kamal Uddin, Professor in the Department of Psychology at the University of Dhaka, with the gracious support of Dr. Khondoker Nasiruddin, Former Vice-Chancellor of the university. Initially, the department enrolled 129 students with three faculty members. Recognizing the increasing demand for specialized education in Psychology, the department expanded in 2021 to include a 1-year professional M.Sc. program in both Developmental Psychology and Counseling Psychology. The Developmental Psychology branch is notable as the first in Bangladesh. This substantial growth underscores the department's pivotal role in advancing the field of Psychology education in the country.

Psychology Department at the Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Pirojpur

Bangladesh's youngest Department of Psychology to offer a 4-year, 8-semester B.Sc. program began its journey in the 2023-2024 academic session. The B.Sc. (Honors) program, launched under the Faculty of Science, marks a significant step in the university's academic offerings. This initiative was spearheaded by Professor Dr. Kazi Saifuddin, the university's first Vice-Chancellor and former Chairman of the Department of Psychology at Jagannath University. With this, the department continues strengthening its impact on Psychology education and research in Bangladesh.

The Application of Psychology in Bangladesh

Numerous institutions have shaped the development of Psychology in Bangladesh over the years, particularly in mental health, personnel recruitment, developmental disabilities, and educational guidance. These institutions have pioneered psychological services, contributing to the broader application of Psychology across different sectors.

Pabna Mental Health Hospital

Established in 1957, Pabna Mental Health Hospital is the largest psychiatric facility in Bangladesh, with a capacity for 500 patients. It provides inpatient and outpatient psychological care and rehabilitation programs. The hospital has been a pioneer in mental health care in the country.

Inter Services Selection Board (ISSB)

The Inter Services Selection Board (ISSB), established in 1974, plays a pivotal role in the recruitment process for officers in the Bangladesh Armed Forces by integrating the country's first specialized psychological assessments in personnel selection. These assessments, conducted by psychologists from all three services—Bangladesh Army, Navy, and Air Force ensure that candidates possess the mental and emotional capabilities required for

military service, underscoring the importance of Psychology in analyzing personality traits and job suitability.

Colonel Arshad Ali, a pioneering psychologist, introduced psychological tools to the officer selection process, focusing on assessing cognitive abilities, personality traits, and emotional stability. Since then, numerous distinguished military psychologists have contributed to advancing applied Psychology in Bangladesh, particularly in personnel recruitment.

Bangladesh Public Service Commission (BPSC)

The Bangladesh Public Service Commission (BPSC) uses psychological assessments as part of its recruitment process to evaluate cognitive abilities and emotional stability. This practice reflects the importance of Psychology in public administration, ensuring that selected civil servants are mentally prepared for high-responsibility roles.

BRAC Developmental Program

BRAC's Developmental Program focuses on providing mental health services to marginalized communities, especially in rural areas. The program offers mental health education and care, expanding access to underserved populations in the country.

Buddhi Protibondhi Rehabilitation Center

Founded in the 1970s, the Buddhi Protibondhi Rehabilitation Center offers training and care for individuals with intellectual disabilities. The center focuses on equipping individuals with the skills needed to live more independently.

Center for Students' Counseling and Guidance at the University of Dhaka

The Center for Students' Counseling and Guidance, founded in 1963, provides free psychological services to University of Dhaka students and faculty. It addresses issues such as academic stress and mental health challenges, which diversify the growth of Psychology.

Government Hospitals

The government hospitals in Bangladesh have played a crucial role in enriching Psychology services and providing mental health care across the country. These hospitals offer a range of services, from psychological assessments to therapy and psychiatric treatments, contributing significantly to the mental health infrastructure.

The National Institute of Mental Health and Hospital (NIMH), located in Dhaka, is the country's largest government-run mental health facility. Established to provide comprehensive care, NIMH offers outpatient and inpatient services, including individual and group counseling, psychiatric evaluations, and medication management. The hospital serves as a primary referral center for complex mental health cases and works closely with medical colleges to train future psychologists and psychiatrists. NIMH also engages

in research and advocacy efforts to destigmatize mental health issues, making significant contributions to the field of Psychology in Bangladesh.

In addition to NIMH, public medical colleges such as Dhaka Medical College and Chittagong Medical College have established Psychiatry and Clinical Psychology departments that cater to a broad range of mental health issues. These departments provide both psychiatric and psychological services, including psychotherapy, cognitive behavioral therapy (CBT), and crisis intervention. They are instrumental in offering psychological support to individuals from diverse socioeconomic backgrounds, many of whom would not have access to private mental health care.

Child Development Centers (CDC) located in several government hospitals also offer psychological services, focusing on developmental disorders and pediatric mental health. These centers provide assessments and interventions for children with autism, ADHD, and other developmental challenges, highlighting the government's commitment to addressing mental health from an early age.

Government hospitals also collaborate with NGOs and international organizations to improve mental health services. For example, the Psycho-social Counseling Unit at Ain O Salish Kendra (ASK) works in conjunction with public hospitals to offer free counseling services to vulnerable populations, including victims of violence and trauma.

Overall, Bangladesh's government hospitals, particularly through institutions like NIMH and public medical colleges, have been pivotal in providing accessible psychological services. They offer direct patient care and contribute to research, education, and the development of the next generation of mental health professionals in the country. These efforts continue to enhance the psychological services landscape in Bangladesh, making mental health care more inclusive and widespread.

Private Clinics

Private clinics and organizations have significantly contributed to the development of psychological services in Bangladesh, providing much-needed mental health care, research, and awareness. These institutions cater to a wide range of psychological needs, from therapy and counseling to specialized mental health support, playing a vital role in promoting mental well-being across the country.

Monobikash Kendro, established in 2006, is a renowned mental health clinic and observation center. The center offers comprehensive mental health services, including psychological counseling, psychiatric care, and rehabilitation for various mental health disorders. Monobikash Kendro takes a holistic approach to treatment, offering individual and group therapy, as well as therapeutic interventions like music therapy and yoga.

LifeSpring, founded in 2010, employs over 200 professionals dedicated to psychological counseling, corporate wellness services, and child development programs. Their integration

of psychological care into schools and workplaces has earned them a reputation as a leader in promoting mental well-being across sectors. LifeSpring has expanded its services to online platforms, ensuring mental health support is accessible to a larger demographic.

Moner Bondhu, established in 2016, has played a significant role in making mental health care affordable and accessible in Bangladesh. Offering both online and offline services, they provide counseling, corporate wellness programs, and psycho-social support. Their 24/7 helpline, group therapy, and workshops have helped raise awareness about mental health, particularly through partnerships with organizations like BGMEA.

PHWC (Psychological Health and Wellness Clinic, Established in 2017 under the Sajida Foundation, PHWC offers a broad range of services, including Employee Assistance Programs (EAPs), crisis intervention, and corporate wellness initiatives. They also provide specialized training in mental health first aid and para-counseling, extending mental health support to underserved communities. They focus on holistic mental health care, blending Clinical Psychology with preventive wellness measures.

While relatively newer in the mental health landscape, Mind Sheba has quickly established itself as a trusted name due to its commitment to accessibility. They provide therapy for individuals, couples, and children, both online and in-person, offering flexible appointments. Their dedication to making mental health services accessible has made them a key player in Dhaka and beyond.

Moner Daktar is a telepsychiatry platform that offers psychiatric consultations, psychotherapy, and mental health assessments tailored to Bangladesh's cultural context. Its focus on delivering online services ensures that mental health care reaches remote and underserved populations. The platform plays a significant role in expanding access to psychological services across Bangladesh.

Chum Wellness provides psychological counseling and therapy services aimed at tackling issues like anxiety, depression, and relationship problems. Their services are available both online and offline, making them a flexible mental health support provider.

These organizations offer specialized care, raise awareness, and provide access to mental health services across different regions and demographics. By addressing gaps in mental health care and advocating for greater awareness, they are helping to build a more inclusive and supportive mental health system in Bangladesh.

In addition to private clinics, several government-sponsored institutes and centers in Bangladesh provide training and support in mental health. These include the Bangladesh Management Development Centers, Industrial Relations Institutes, and Bangladesh Industrial Technical Assistance Centers. These institutions, with the assistance of psychologists, offer practical training on labor-management relations, focusing on enhancing employee motivation, job satisfaction, morale, and mental health.

Moreover, several non-governmental organizations (NGOs) in Bangladesh employ psychologists for research and training in human resource development and poverty alleviation programs.

Various Associations of Psychology

The field of Psychology in Bangladesh has witnessed significant growth, largely thanks to the contributions of various professional associations and societies. These organizations have promoted psychological education and research and played a crucial role in applying psychological principles to improve societal well-being.

Bangladesh Psychological Association (BPA)

Established in 1972, the Bangladesh Psychological Association (BPA) is a voluntary professional organization of Bangladeshi psychologists. Its primary objective is to promote and disseminate psychological knowledge and its application to human welfare, both locally and globally. The BPA has consistently organized conferences attended by psychologists from home and abroad, enriching psychology as a scientific and professional discipline in Bangladesh. A significant milestone in BPA's history is its affiliation with the International Union of Psychological Science (IUPsyS) in 1996, during Professor Abdul Khaleque's presidency. This affiliation marked Bangladesh's integration into the global psychological community.

Bangladesh Clinical Psychology Society (BCPS)

Founded on October 26, 1999, as the Bangladesh Clinical Psychology Association (BCPA), the organization was later renamed the Bangladesh Clinical Psychology Society (BCPS) on February 23, 2010. BCPS is dedicated to improving mental health in Bangladesh through clinical psychology practices. Its vision statement, "Clinical Psychology for Quality of Life," reflects its commitment to promoting research, education, and high professional and ethical standards for clinical psychologists. Over the years, BCPS has grown into a leading organization in the field.

Bangladesh Educational and Counselling Psychology Society (BECPS)

Established in 2015, the Bangladesh Educational and Counselling Psychology Society (BECPS) is a professional organization dedicated to advancing educational and counseling psychology within Bangladesh. It was founded to address the growing need for psychological support and development in educational settings. BECPS works to promote mental health awareness and academic growth among students, educators, and communities.

Bangladesh School Psychology Society (BSPS)

Founded in 2017, the Bangladesh School Psychology Society (BSPS) aims to improve educational environments and student well-being in Bangladesh. Affiliated with international organizations, BSPS promotes ethical practices for school psychologists serving students in schools, colleges, and universities. It provides resources and training

on assessment, intervention, and collaboration. BSPS's vision, "School Psychology for Quality Citizen," underscores its mission to empower school psychologists to advocate for student mental health and well-being.

Bangladesh Psychometric Society (BPS)

Established in 2020, the Bangladesh Psychometric Society (BPS) was founded by a group of dedicated academics and professionals with a vision of developing a skilled workforce in the field of psychometrics. Recognizing the existing knowledge gap in various sectors due to a lack of understanding of psychometric principles, BPS aims to provide accessible and comprehensive psychometric education to students, educators, and policymakers both locally and internationally.

The Society's guiding vision, "Work for Fairness, Justice, and Elimination of Discrimination," reflects its commitment to fostering equality through the ethical application of psychometric tools. BPS plays an essential role in promoting fairness by building a team of skilled psychometricians who specialize in collecting, analyzing, and interpreting psychometric data to ensure that individuals are judged equitably across all fields, including education, employment, and health.

BPS has taken significant steps to raise awareness and advance the field of psychometrics in Bangladesh. One of the key milestones was the international conference held on January 21-23, 2022, which brought together experts and professionals from various sectors to discuss the advancements and applications of psychometrics in building a fairer society. This conference highlighted society's efforts to bridge the gap in psychometric knowledge and promote its ethical use across the globe.

These organizations collectively contribute to the advancement of psychology in Bangladesh, each focusing on specialized areas to address the diverse psychological needs of the population.

Bangladesh Journal of Psychology (BJP)

Since its inception in 1972, the Bangladesh Psychological Association has been publishing a journal named, 'Bangladesh Journal of Psychology (BJP)'. This journal is being published primarily bi-annually, almost regularly. The journal has substantially contributed to disseminating psychological knowledge in the South Asian regions, including Bangladesh, India, and Pakistan. When the first author of this article (Abdul Khaleque) became the Editor of three continuous issues of the Bangladesh Journal of Psychology (i.e., Volumes 13 (1992), 14 (1993-94), and 15 (1995-96), he persistently tried for international recognition and reputation of this journal. His effort was fruitful as the Bangladesh Journal of Psychology obtained the International Standard Serial Number (ISSN: 1022-7466) in 1995. In addition, this journal was listed in the Ulrich International Periodical Directory for the first time, and the Swets Subscription Service of the Netherlands started distributing the Bangladesh Journal of Psychology worldwide. Moreover, in 1996, the Abstracting Service

of the American Psychological Association (APA) published all the abstracts of volume 15 of the Bangladesh Journal of Psychology. The Bangladesh Journal of Psychology was indexed in the PsycInfo Database of the American Psychological Association. However, it is sad but true that when Professor Khaleque left the University of Dhaka and joined the University of Connecticut, USA, in 1996, the subsequent Editors of the Bangladesh Journal of Psychology kept no contact with the Abstracting Service of the APA. Consequently, the Bangladesh Journal of Psychology was dropped from the APA's Abstracting Service. That was a significant setback in the progress of international recognition and reputation of the Bangladesh Journal of Psychology.

Progress, Prospect, and Challenges of Psychology

Psychology in Bangladesh is still largely perceived as being synonymous with mental illness, but globally, the field encompasses far broader applications that can significantly contribute to the nation's development. Beyond its clinical applications, Psychology plays an essential role in recruitment, education, organizational development, human resource management, forensic investigations, marketing, policymaking, sports, and disaster management. By broadening the understanding and application of Psychology, Bangladesh can unlock diverse opportunities that position the discipline as a key contributor to national progress.

For example, in the *United States*, the *American Psychological Association (APA)* has promoted a wide array of psychological fields beyond clinical and mental health. Industrial-Organizational (I-O) Psychology is a prominent area where psychologists focus on improving workplace efficiency, employee well-being, and organizational leadership (APA, 2021). In Bangladesh, this branch could be crucial in enhancing productivity and optimizing human resource management across various sectors, including corporate businesses, government, and manufacturing industries

Similarly, the *British Psychological Society (BPS)* highlights Educational Psychology and Forensic Psychology as key branches that have contributed significantly to UK public policy and legal systems. In Britain, educational psychologists help design inclusive educational systems that cater to students with special needs, while forensic psychologists support criminal investigations and provide expert testimony in courts (BPS, 2020). These branches can be vital in Bangladesh, where education reform and criminal justice improvements are high priorities

In Australia, the *Australian Psychological Society (APS)* has been pivotal in advancing Cyberpsychology, which examines the psychological effects of digital environments, social media, and online behaviors. With the rapid rise of technology in Bangladesh, cyberpsychology could be essential in addressing challenges related to digital well-being, cyberbullying, and the psychological impact of constant connectivity

By expanding the scope of Psychology beyond mental health, Bangladesh can harness the potential of other branches like Business Psychology, Sports Psychology, Disaster

Psychology and so on. For instance, business Psychology could help local companies understand consumer behavior and improve marketing strategies. Sports Psychology, already emerging globally, can play a role in athlete performance and team dynamics as sports gain popularity in Bangladesh. Finally, disaster Psychology, drawing from experiences in nations like the U.S., can be crucial in offering psychological support during natural disasters, an area of pressing need given Bangladesh's vulnerability to floods and cyclones.

Areas of Progress

Psychology in Bangladesh has made significant strides in various domains, showcasing its growing impact across multiple fields. The increasing number of psychologists pursuing PhDs and engaging in meaningful research has elevated the academic and professional landscape. Publications now reflect a broader interest in applied research, addressing social issues such as gender, mental health, education, recruitment and community-based interventions. Indigenous psychological approaches are also gaining prominence, as more research focuses on culturally relevant practices and mental health solutions tailored to the local context.

Collaboration between academic institutions, professional bodies, and international organizations has fostered cross-cultural studies and innovative research. Active professional bodies such as the Bangladesh Psychological Association (BPA), Bangladesh Clinical Psychology Society (BCPS), and the Bangladesh Psychometric Society (BPS) have been instrumental in promoting research, establishing service centers, and engaging in various professional activities aimed at advancing Psychology. Additionally, the adaptation and development of psychometric tools for research have gained widespread attention, contributing to more accurate assessments in recruitment, clinical evaluations, and human resource management.

In recent times, mental health support, has flourished largely in Bangladesh with branches like –

Clinical Psychology is perhaps the most established branch of Psychology in Bangladesh. It addresses mental health issues such as anxiety, depression, and trauma. The University of Dhaka has been a pioneer in this field, offering clinical Psychology programs that train professionals to provide therapy, counseling, and psychiatric care. Clinical psychologists in Bangladesh work in hospitals, clinics, and private practice, playing an essential role in mental health care. Organizations like Moner Bondhu and LifeSpring provide accessible mental health services, making clinical Psychology more available to the wider population.

Counseling Psychology provides mental health support to individuals dealing with stress, grief, relationship issues, and life transitions. Counseling psychologists in Bangladesh are found in educational institutions, clinics, and NGOs. They work closely with clients to provide therapy and counseling, often addressing issues that are less severe than those

treated by clinical psychologists. This branch is essential for providing emotional support and improving overall well-being, helping individuals cope with everyday challenges.

In recent times, other than mental health, many more fields of Psychology have flourished in Bangladesh like –

School Psychology plays a critical role in addressing the psychological and developmental needs of students. In Bangladesh, this field has grown as schools increasingly recognize the importance of mental health in educational success. School psychologists work alongside educators to assess learning difficulties, manage stress, and support students with emotional or behavioral challenges. Although still developing, school Psychology in Bangladesh has the potential to address not only individual student needs but also systemic educational challenges, contributing to a more supportive and inclusive learning environment.

Educational Psychology focuses on improving learning outcomes through the application of psychological principles. In Bangladesh, educational psychologists help design curricula, develop learning strategies, and assess student progress. This field is growing, particularly in urban areas where schools are integrating psychological services to better understand how students learn and what factors influence their academic performance. Educational Psychology helps teachers and administrators implement research-based teaching methods, thereby supporting cognitive and emotional development.

Industrial and organizational (I/O) Psychology is gaining traction in Bangladesh, particularly in the corporate and public sectors. I/O psychologists help businesses optimize employee performance, improve job satisfaction, and enhance leadership development. Psychometric assessments are being increasingly used in recruitment processes, ensuring that candidates selected for jobs have the necessary emotional and cognitive competencies. I/O Psychology in Bangladesh is contributing to a more efficient and productive workforce, especially in large organizations and government services. Organizations such as the Inter Services Selection Board (ISSB) rely heavily on psychological testing to select candidates for the Bangladesh Armed Forces. Psychological tools help evaluate cognitive abilities, emotional stability, leadership potential, and mental fitness, ensuring that the right individuals are placed in key roles. In the corporate sector, human resource departments utilize psychological assessments to improve employee performance, job satisfaction, and overall productivity, highlighting the value of Psychology in organizational development.

Challenges and Future Needs

Psychology in Bangladesh faces several challenges that hinder its growth and effectiveness across multiple specialized fields. One of the most pressing issues is the concentration of psychological services in urban areas, particularly Dhaka, with a heavy emphasis on mental health services. While mental health remains critical, other important psychological fields like recruitment, forensics, human resource management, school, and Sports Psychology lack the expertise and widespread application they require.

Limited Expertise in Specialized Fields

Despite the rising demand for Psychology in recruitment and organizational settings, there is a shortage of qualified professionals in Psychometrics, psychological testing, and employee selection. Many organizations, particularly in the corporate sector, are beginning to use psychological assessments for hiring and performance management. However, expertise in these areas remains concentrated in a few institutions, such as the Inter Services Selection Board (ISSB), which uses psychological tools for military officer selection. Broader implementation in sectors like business, human resources, and education is still minimal.

Similarly, Forensic Psychology, which plays a vital role in the legal system, particularly in criminal profiling, evaluating defendants' mental health, and assisting law enforcement, is underutilized due to a lack of trained professionals. Criminal Psychology, an offshoot of Forensic Psychology, also struggles to gain recognition, limiting its potential in aiding crime prevention and the rehabilitation of offenders.

Inadequate Infrastructure and Resources

Classroom facilities across universities have failed to keep pace with the growing interest in Psychology. With an increasing number of students enrolling in Psychology programs, resources such as laboratories, up-to-date equipment, and access to journals remain severely limited. Research in Psychology is constrained by outdated methodologies and a lack of technological resources for modern psychometric testing or clinical research.

The scarcity of research grants further exacerbates this problem, with few opportunities for students and academics to pursue cutting-edge research in specialized areas such as Sports Psychology, School Psychology, or Positive Psychology. Although some progress has been made, research priorities are often unclear, and applied research that addresses the country's unique social and psychological issues remains insufficient.

Educational Gaps and Public Awareness

Bangladesh currently has only seven tertiary institutions offering Psychology programs, despite having over 200 public and private universities. This limited academic infrastructure restricts the number of qualified professionals entering the field. Additionally, Psychology is not introduced at the secondary education level, and it remains an elective at the higher secondary (HSC) level. As a result, many students are unaware of the subject until they enter university, often opting for Psychology as a secondary or third-choice field of study, which impacts their long-term commitment and performance.

The lack of awareness about Psychology's role in non-mental health fields—such as recruitment, sports, and forensic setting—among the general public and policymakers also hampers its growth. Mental health remains the focal point for Psychology-related services, leaving other fields underdeveloped.

Socio-economic Barriers and Job Opportunities

Psychologists in Bangladesh face limited job opportunities outside traditional roles in academia and mental health services. While human resource management and corporate

wellness are emerging fields, many businesses are still unaware of the benefits that Psychology can bring in improving employee satisfaction and productivity. Similarly, school psychologists, industrial psychologists, and so on can make a significant impact on the psychological field, but they are not yet standard in most educational institutions.

The socio-economic conditions of the country also pose a challenge. Many individuals cannot afford psychological services, even in essential areas such as clinical counseling and therapy. The lack of public funding for psychological services in sectors like education, law enforcement, and sports further restricts the growth of these fields.

Prospects

Despite the challenges facing Psychology in Bangladesh, the field shows promising potential for growth and development. Recent efforts to enhance teaching standards, improve laboratory facilities, and increase research publications have laid the groundwork for a brighter future. The demand for mental health services, alongside the increasing application of Psychology in various sectors like recruitment, education, sports, and law enforcement, presents vast professional opportunities. As well as fields like Psychometrics, Industrial Psychology, Forensic Psychology, Family Psychology, Sports Psychology, Cyberpsychology and Geriatric Psychology hold significant potential due to their applicability to Bangladesh's evolving social landscape.

To fully realize these prospects, collaboration between psychologists and supportive agencies, both governmental and non-governmental, is crucial. Professional bodies like the Bangladesh Psychological Association, Bangladesh School Psychology Association, Bangladesh Psychometrics Association, and other related organizations must continue to advocate for the role of Psychology across different sectors. With strategic investments in education, research, and public awareness, Psychology in Bangladesh can advance rapidly, providing solutions to the country's pressing social and behavioral challenges.

Expansion of Psychology

While mental health and Clinical Psychology continue to lead in addressing the nation's pressing mental health needs, Psychology in Bangladesh has much broader applications with the potential to significantly impact various sectors. Fields such as School Psychology, supporting educational environments, and recruitment and human resource management, where psychometric evaluations enhance hiring and employee development, are gaining relevance. The rise of Sports Psychology highlights its importance in helping athletes improve mental resilience and performance. Similarly, Forensic and Criminal Psychology plays a growing role in the legal system, assisting in criminal investigations and rehabilitation efforts.

Beyond these already established branches, Bangladesh could explore several other promising areas where Psychology can expand its footprint like -

Health Psychology can play a key role in understanding how psychological factors impact physical health. Psychologists specializing in this area can help manage chronic illness, promote healthy lifestyles, and integrate mental health into general healthcare initiatives, particularly in rural and underserved communities.

Environmental Psychology focuses on the relationship between individuals and their physical surroundings, including how urban planning, architecture, and green spaces affect mental health. With rapid urbanization in Bangladesh, this field can help guide the development of more sustainable, healthier living environments that promote well-being.

As the population ages, Gero Psychology will become increasingly important in addressing the mental health and quality of life of older adults. This branch offers support in areas such as cognitive decline, depression, and social isolation, while also aiding caregivers in managing the complex needs of aging populations.

Consumer Psychology is key to understanding consumer behavior and decision-making processes, which is particularly relevant in Bangladesh's growing consumer market. Businesses can leverage insights from this field to design more effective marketing strategies and products that resonate with consumers' psychological motivations.

Cyberpsychology explores the psychological effects of technology and digital environments, which are particularly relevant in today's increasingly connected society. This field studies online behavior, the impact of social media on mental health, and how digital interactions shape identity, social relationships, and mental well-being.

Neuropsychology bridges Psychology and neuroscience by studying brain-behavior relationships. This field can play a crucial role in diagnosing and treating individuals with cognitive impairments, brain injuries, and neurodevelopmental conditions, contributing significantly to the integration of psychological and medical care in Bangladesh.

Business Psychology is becoming increasingly relevant in Bangladesh's corporate sector. Understanding human behavior in business settings can enhance leadership, management, and organizational efficiency. Psychologists working in this field apply behavioral insights to improve decision-making, marketing, consumer engagement, and overall business performance.

Crisis Management Psychology addresses how individuals and organizations handle high-stress, high-stakes situations like economic crises, pandemics, or natural disasters. In Bangladesh, this field could provide essential guidance for government agencies, NGOs, and communities to prepare for and respond to crises more effectively.

As Bangladesh continues to grow its defense sector, Military Psychology could contribute significantly to the mental well-being and performance of armed forces personnel. This branch focuses on enhancing resilience, leadership skills, and psychological health in high-pressure environments, while also supporting veterans in their reintegration into civilian life.

Rehabilitation Psychology focuses on helping individuals recover from physical, emotional, or cognitive impairments resulting from injury, illness, or disability. In

Bangladesh, this field can play a key role in supporting individuals with disabilities, offering therapeutic interventions, and improving their quality of life through adaptive techniques and psychological support.

Forensic Psychology is another rapidly growing area, with professionals contributing to criminal investigations, legal cases, and rehabilitation programs. Forensic psychologists provide expert testimony in court, assist law enforcement agencies in profiling criminal behavior, and evaluate defendants' mental health. This field is crucial in developing an evidence-based approach to legal and criminal matters in Bangladesh, addressing issues like criminal responsibility and offender rehabilitation.

Emerging fields like Positive Psychology focus on enhancing well-being and personal growth in educational and corporate settings. In Bangladesh, where mental health is often viewed through the lens of addressing illness or dysfunction, Positive Psychology presents a powerful opportunity to shift the narrative towards enhancing quality of life.

Family Psychology addresses the dynamics and relationships within families, offering strategies to improve communication, resolve conflicts, and build stronger bonds. In Bangladesh, where family is often the cornerstone of social life, the potential for family Psychology is vast. Issues such as intergenerational conflict, marital discord, and parenting challenges are common, and family psychologists can play a crucial role in providing support and guidance.

Sports Psychology focuses on enhancing athletic performance and well-being by addressing mental and emotional aspects of sports. In Bangladesh, where sports such as cricket, football, and athletics are increasingly popular, Sports Psychology offers an untapped potential to enhance both individual and team performance. Sports psychologists work with athletes to improve mental resilience, focus, and stress management, all of which are essential for peak performance.

Community Psychology is another branch that has played an integral role, focusing on enhancing community well-being, particularly in underserved areas. This branch can be instrumental in addressing mental health issues at the community level in rural Bangladesh, where access to healthcare remains limited.

Enrichment of Psychology

To further enrich the field of Psychology in Bangladesh, it is crucial to standardize clinical, counseling, school, industrial, and organizational psychological services nationwide. Standardizing the Bangla versions of psychological tests, which are widely used by researchers, requires further refinement to meet international standards. Additionally, enhancing the research skills of both teachers and students through quality education and advanced training in research methods is essential. Upgrading the Bangladesh Journal of Psychology (BJP) to meet global academic and research standards is another critical step. This would involve focusing on publishing high-quality, impactful research that can gain

international recognition and elevate the country's academic contributions. Expanding the scope of Psychology is equally important to address Bangladesh's psycho-social quality of life comprehensively.

Currently, the University of Dhaka offers only four subfields for specialization in its MS program, despite a pressing need for more diverse options. Introducing specializations such as forensic Psychology, which can assist in legal processes and criminal investigations, and aviation Psychology, which is crucial for improving safety and performance in the rapidly growing aviation sector, is vital. Additionally, fields like child and adolescent Psychology, focusing on developmental challenges, and environmental Psychology, addressing the mental health impact of urbanization and climate change, must be developed. Expanding these specializations will ensure that the discipline caters to the growing demand in various sectors and contributes to solving pressing societal challenges.

The Bangladesh Psychological Association (BPA) must take a more active and dynamic role in improving the quality of research, psychological services, and professional engagement. This includes establishing robust systems for counseling, licensing, and clinical practices to uphold high ethical and professional standards among practitioners. By addressing these challenges and opportunities, Psychology in Bangladesh can align with global trends, ensuring its progress while significantly improving the nation's overall mental health and social well-being. Such efforts will position the discipline as a vital contributor to addressing the complex psycho-social needs of a rapidly evolving society.

Strategic Recommendations for Advancing Psychology in Bangladesh

Despite notable advancements, Psychology in Bangladesh stands at a crucial juncture, facing significant challenges such as inadequate infrastructure, limited funding, insufficient professional recognition, and cultural stigmas surrounding mental health. A comprehensive strategic approach must be implemented to overcome these barriers and foster a more robust, inclusive, and contextually relevant discipline. Addressing these issues is not only vital for the discipline's growth but also for enhancing public well-being and national development.

Strengthening the institutional infrastructure for Psychology in Bangladesh is essential. This includes establishing more advanced Psychology departments across universities nationwide and upgrading existing facilities with modern laboratories, testing centers, and digital resources. Such improvements will enable more comprehensive research and education in both traditional and emerging areas of Psychology. Partnerships between academic institutions and mental health facilities can provide practical training, internships, and clinical supervision, ensuring students gain hands-on experience to complement their theoretical learning. Moreover, fostering interdisciplinary collaboration within these institutions can further enhance the relevance and application of psychological knowledge.

Securing sustainable funding is another critical step. The government must increase its financial support for Psychology programs and mental health services, recognizing their role in national development. Additionally, involving the private sector and non-governmental

organizations in sponsoring mental health initiatives, research projects, and public awareness campaigns is crucial. Encouraging grant-writing and international collaborations can open doors to global research funding, enabling Bangladeshi scholars to contribute to and benefit from the international body of psychological knowledge. Increased funding will also ensure the discipline's capacity to address contemporary challenges effectively.

Enhancing professional recognition for psychologists is urgently needed to elevate the field's status and functionality. Establishing a national accreditation body to standardize training, licensing, and ethical guidelines will ensure professionals meet the highest standards. Psychologists should be integrated into multidisciplinary teams in hospitals, schools, and corporate environments, broadening their roles and showcasing their contributions. Public awareness campaigns can shift perceptions of Psychology, promoting it as both a science and a profession, thereby increasing demand for psychological services. Addressing cultural stigmas surrounding mental health through school curricula, public media, and collaboration with community and religious leaders is also essential to normalizing psychological well-being.

Efforts to contextualize Psychology to address Bangladesh's unique cultural and social dynamics are paramount. This involves developing culturally relevant psychological assessment tools and therapeutic approaches tailored to local needs. Community-based mental health services should be prioritized, especially in rural and underserved areas where access to care is limited. Encouraging research on Indigenous psychological concepts will contribute to global knowledge from a non-Western perspective, enriching the international understanding of human behavior. Simultaneously, aligning Psychology in Bangladesh with global standards through international collaborations, publishing in global journals, and adopting modern technologies such as telehealth and artificial intelligence can ensure its relevance on a broader scale.

Expanding educational opportunities is vital for raising awareness and interest in Psychology. Introducing Psychology at the secondary school level and making it a mandatory subject at the higher secondary level could significantly increase understanding of the field. Increasing the number of universities offering Psychology programs, particularly in underserved areas, is necessary to meet growing demand. Specialized training programs in fields like Forensic Psychology, Sports Psychology, School Psychology, and Organizational Psychology will diversify applications beyond mental health services, addressing a wider range of societal needs. National research grants for areas such as Positive Psychology, Family Psychology, and Criminal Psychology can also significantly advance these emerging fields.

Finally, public awareness campaigns and policy advocacy must go hand in hand to create an environment conducive to the growth of Psychology. Strengthening professional networks among psychologists, educators, and policymakers through organizations like the Bangladesh Psychological Association and Bangladesh Clinical Psychology Society can drive policy changes and enhance service delivery. Government policies mandating the inclusion of school psychologists, forensic psychologists, and sports psychologists in their respective

sectors will ensure the systematic application of psychological expertise. Workplace mental health legislation and insurance policies covering mental health care are also necessary to make psychological support more affordable and accessible, benefiting employees and the general public alike. By addressing these challenges through coordinated and strategic efforts, Psychology in Bangladesh can evolve into a more inclusive, well-recognized, and contextually relevant discipline. This will not only enhance its contribution to the country but also strengthen its role in the global advancement of psychological knowledge and practice.

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