Research Paper

Adolescent Mental Health in Relation to the Factors of Social Ecosystem

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ABSTRACT

The main objective of the present study was to explore the relationship between Adolescent's mental health with the social ecosystem. The specific objective was to explore whether the subsystems of the social ecosystem, i.e., microsystem, mesosystem, exosystem, macrosystem, and chronosystem have a variation on adolescents' mental health. The study also explores whether the elements of the microsystem, mesosystem, exosystem, and macrosystem have a variation on adolescents' mental health. The participants of the present study were the adolescents of Dhaka city in Bangladesh. The sample comprised 400 (four hundred) adolescents; those were obtained from different schools of Dhaka city. A three-stage stratified random sampling technique was followed to collect data. Adapted Bangla version of the Mental Health Inventory-38 (Veit and Ware, 1983) and a developed Bangla version of the Social Ecosystem Scale was used. The mean, standard deviation, correlation, multiple and step-wise regression were computed. The results indicated that adolescent mental health is significantly correlated (r=.603, p<.001) with the social ecosystem. Results of regression analysis indicated that the strongest predictor of mental health was microsystem, which alone explained 31.7% of the variance. R² change indicated that 10.6% of variance by the macrosystem, 2.4% of variance by the exosystem, 3.1% of variance by the mesosystem, and 2.7% of the variance in mental health was accounted by the chronosystem. The results further indicated that these five factors jointly account for 50.6% of the variance in mental health.

Human behaviour is a complex product of biological, environmental, and multidimensional interactions that continues through generations maintaining the evolutionary chain. Such evolution maintains bilateral developments between the biological and environmental existence. Both are well related to each other through complex coexistence and symbiotic exchanges. The environment, however, does signify its categories where for humans the social ecosystem is the particular dimension rather than the other animals. Besides the natural and human-made environmental settings, the social ecosystem plays a vital role in the nursing of proper human development. Such human development can be divided into two dimensions as physical and mental development. The combined

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state of both developments of human life can also be divided into some stages on the basis of the chronological age. One of the stages stated above is called adolescence which has been defined by its material chronology between the age brackets from 11-12 to 16 -17 years old. Such age is important for an individual's life by its critical development of physical and mental states. In this connection, a study can be conducted in which, the relations and coexistences between the adolescent mental states and its correlation in the social ecosystem are to be measured in significances with the socio-psychological point of view.

Mental Health

Mental health is a state of emotional and psychological well-being in which an individual can use his or her cognitive and emotional capabilities, functions in society, and meet the ordinary demands of everyday life. Health is a state of complete physical, mental and social well-being and not the absence of disease or infirmity (WHO, 2001).

Parents, practitioners and policymakers are recognizing the importance of young people's mental health. Youth with better mental health are physically healthier, demonstrate more socially positive behaviours and engage in less risky behaviour (Resnick, 2000). Conversely, youth with mental health problems, such as depression, are more likely to engage in health-risk behaviours (Brooks et al., 2002). Furthermore, youth's mental health problems pose a significant financial and social burden on families and society in terms of distress, cost of treatment, and disability (Saunders, 2003; Busch & Barry, 2007; Merikangas et al., 2007). Most of the mental health problems diagnosed in adulthood begin in adolescence. Half of the lifetime diagnosable mental health disorders start from the age of 14; this number increases to three fourth by the age of 24 (Kessler et al., 2005).

Social Ecosystem

Drawing from the natural ecosystem which is defined as the network of interactions among the organisms, between organisms, and their environment. Social ecology is a framework or set of theoretical principles for understanding the dynamic interrelations among various personal and environmental factors (Schulze, 2005). Social ecology pays explicit attention to the social, institutional, and cultural contexts of people-environment relations. This perspective emphasizes the multiple dimensions (example: physical environment, social and cultural environment and personal attributes), multiple levels (example: individuals, groups, organizations), and complexity of human situations (example: cumulative impact of events over time) (Lindsay and Penelop, 2005).

The Ecology of Human Development (Bronfenbrenner, 1979) model proposed by Urie Bronfenbrenner extended the social-ecological perspective to account for the complexity of individuals developing within embedded systems. Bronfenbrenner specified **micro-, meso-, exo-, and macro- subsystems,** which constitute the settings and living space within which an individual develops. The microsystem is the layer closest to the child and contains the structures with which the child has direct contact. The microsystem encompasses the relationships and interactions a child has with his or her immediate surroundings, such as family, school, neighbourhood, or childcare environments (Berk, 2000). Mesosystem provide the connection between the structures of the child's micro-system (Berk, 2000). For example, the connection between the child's teacher and his parents, between his church and his neighbourhood, each represent mesosystem.

The exosystem defines the larger social system in which the child does not directly function. The structures in this layer impact the child's development by interacting with some

structure in his/her microsystem (Berk, 2000). Parent workplace schedules or community-based family resources are examples. The macrosystem is composed of cultural values, customs, and laws (Berk 2000). It refers to the overall patterns of ideology and organization that characterize a given society or social group. Macrosystem can be used to describe the cultural or social context of various societal groups such as social classes, ethnic groups, or religious affiliates (McLaren, et al., 2005). The chronosystem encompasses the dimension of time as it relates to a child's environment (Bronfenbrenner, 1989). Elements within this system can be either external, such as the timing of a parent's death, or internal, such as the physiological changes that occur with the ageing of a child.

Understanding Adolescence

The term adolescence comes from the Latin word adolescere, meaning *to grow* or *to grow to maturity*. Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood. It is customary to regard adolescence as beginning when children become sexually mature and ended when they reach the stage of legal maturity. A boy or a girl who belongs to this period is called Adolescent.

Elements of Sub-systems of Social Ecosystem and Research Framework in the Present Study
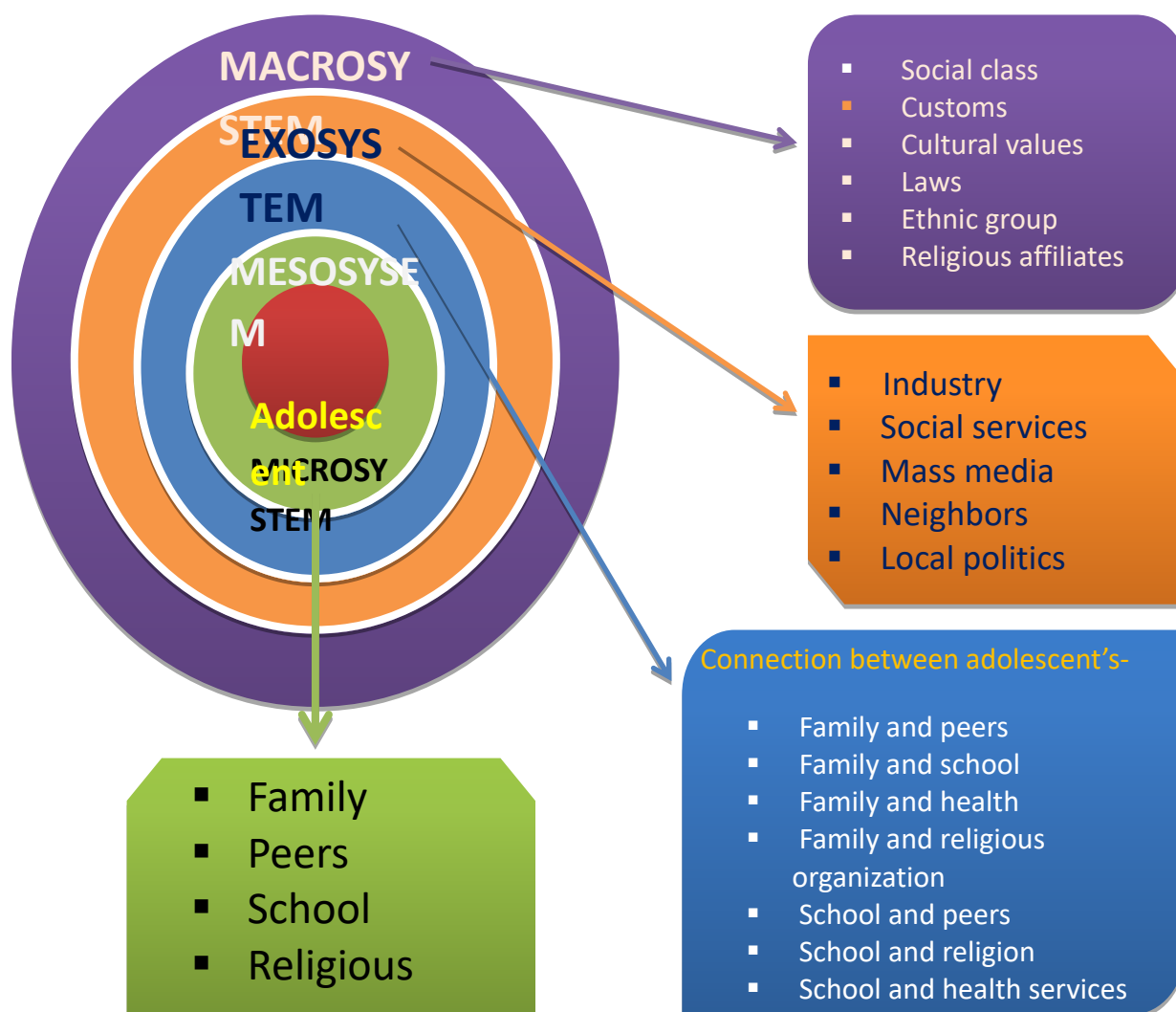

Figure-1 Elements of Sub-systems of Social Ecosystem and Research Framework

REVIEW OF THE LITERATURE

A questionnaire study was carried out in Wisconsin and California on the 8700 school students. Results showed that when adolescents thought that their parents were trying to dominate their psychological experience their emotional health suffered more than when parents tried to control their behavior (Gray and Steinberg, 1999).

Youth who exhibit problem behavior during the middle school years often prone to substance use and increase their interaction with deviant peers, which in turn leads to academic failure, and continued substance use and antisocial behavior in high school (Dishion and Owen, 2002). Deficits in parental management and poor family relationships are key predictors of problem behavior, i.e., the maintenance of problem behavior, and adolescent depression (Spoth, Kavan, and Dishion, 2002).

Nancy et al., (1996) using a 1-year prospective design to examined the influence of family status variables (family income, parental education, family structure), parenting variables (maternal support and restrictive control), peer support and neighborhood risk on the school performance of 120 African American junior high school students. In addition to the main effects of these variables, neighborhood risk was examined as a moderator of the effects of parenting and peer support. Family status variables were not predictive of adolescent school performance as indexed by self-reported grade point average. Maternal support at time one was prospectively related to adolescent grades at time two. Neighborhood risk was related to lower grades, while peer support predicted better grades in the prospective analyses. Neighborhood risk also moderated the effects of maternal restrictive control and peer support on adolescent grades in prospective analyses. These findings highlight the importance of an ecological approach to the problem of academic underachievement within the African American community.

Socially anxious youth encounter negative outcomes from social interactions with peers. An extensive review of this literature from both a developmental and a clinical viewpoint it has found in Kingery et al., (2010) study. Socially anxious youth perceive lower levels of peer acceptance and support than their less anxious counterparts (La Greca & Lopez, 1998), and are indeed treated more negatively by classmates than their non-anxious peers (Blöte, Duvekot, Schalk, Tuinenburg, & Westenberg (2010).

Rationale of the study

Ecological the model applied to adolescence will give perspective on the multiple determinants of behavior during this age period. One of the main features of modern developmental theories is that increasing the complexities of conceptualization more factors that have been influencing human growth. The ecological model has given the emphasis on the life span approach, and organization of these approaches in to the ecological model. Studies in a developmental field increasingly incorporated variables which reflect extra-individual influences on the psychological functioning of children and adolescent. Parent-child relationship research programs are now including other factors such as family, peer, neighbor, culture, politics, etc. as additional context for consideration. The goal of collecting this information is to improve the mental health system and provide a baseline for monitoring the change.

Many mental health problems emerge in late childhood and early adolescence. Poor mental health can have import effect on the wider health and development of adolescents and is an association with different health and social outcomes such as higher alcohol, tobacco and

illicit substances use, adolescent pregnancy, school dropout and delinquent behaviors. There is a growing consensus that healthy development during childhood and adolescence contributes to good mental health and can prevent mental health problems.

Research Objective

- The major objective of the present study was to explore the relationship of adolescent's mental health with the social ecosystem. The specific objectives were to explore- whether-
- Whether adolescent's mental health has correlation with microsystem, mesosystem, exosystem, macrosystem, and chronosystem.
- Whether factors of the social ecosystem have variation on adolescent's mental health.
- Whether elements of microsystem, mesosystem, exosystem, and macrosystem have variation on adolescent's mental health

METHODS

Sample

The participants of the present study were the adolescents of Dhaka city in Bangladesh. The sample comprised 400 (four hundred) adolescents, who were taken from different schools of Dhaka city. The mean ages of participants were fifteen. A three-stage stratified random sampling technique was followed for data collection. In the first stage, samples were selected based on the type of school, i.e., public school or private school. From that list, ten schools were selected randomly. In the second stage, all the students of the selected schools were selected based on gender. In the third stage, all the adolescents of the selected schools were chosen based on which class they read in. Among 400 (four hundred) participants, 200 (two hundred) were boys, and 200 (two hundred) were girls. The distribution of the sample-based upon their demographic characteristics is shown in the following table,

Measuring Instruments:

In this study, the following two standardized scales along with a demographic and personal information questionnaire were used for collecting data from the sample.

- Bangla version of the Mental Health Inventory-38 (MHI-38)
- Bangla version of the Social Ecosystem Scale

Demographic and Personal Information Questionnaire

A Demographic and Personal Information Questionnaire was used to collect personal and demographic information. Such as age, sex, education, type of school, socio-economic status, parent, and sibling's related information's of the participants were collected.

Mental Health Measuring Scale

MHI is a method for evaluating mental health issues. This inventory is developed by Veit and Ware (1983). Mental Health Inventory (MHI-38), a 38-item measure of psychological distress and well-being, developed for use in general populations. The MHI was tested on a large sample (N=5089) of aged 13-69 years. It is a 6-point Likert-type response scale. The original MHI has a .93 Cronbach alpha.

In the present study, the researcher has made the adaptation of the Mental Health Inventory (MHI-38) following Bangladeshi culture. Cronbach alpha was computed to determine the internal consistency reliability. The Cronbach alpha was found at 0.866. This value is highly

significant, with an alpha level of 0.01. (N=80) To assess the convergent validity of the instruments, the researcher determined inter-correlation between the sub-scales of MHI-38. A notably high negative correlation was observed between scores of the Psychological Distress and Psychological well-being ($r = $ **-**.794).

The Mental Health Index is a single score based on all 38 items designed as a high-level summary index of the person's mental health status. All of the 38 MHI items, except two, are scored on a six-point scale (range 1- 6). Items 9 and 28 are the exception, each score on a five-point scale (range 1-5). The raw score range is 38-226. High scores on the Mental Health Index indicate greater psychological well-being and relatively less psychological distress.

Social Ecosystem Scale

The researcher wants to see the relationship between an adolescent's mental health in the context of the social ecosystem; hence it is felt that there is a need to develop an instrument to measure the social ecosystem in Bangladeshi context. The field test was carried out to determine the reliability and validity of the Bangla version of the Social Ecosystem Scale. For the Bangla version of the Social Ecosystem Scale, 70 items was thoroughly analyzed, and corrected item-total correlations were calculated. The corrected item-total correlation values of 70 items were found significant.

Cronbach alpha was computed to determine the internal consistency of reliability. The Cronbach's alpha was 0.854. This value is highly significant, with an alpha level of 0.01. To assess the convergent validity of the instruments, the researcher determined inter-correlation among sub-scales of the Social Ecosystem Scale. This provided pieces of evidence for the internal structure of the instrument. The scores of the Social Ecosystem Scale were significantly correlated with each other within the field test group.

Scoring

Social ecosystem-scale consists of 70 items measuring the social ecosystem of the adolescents using a 5-point Likert scale. The five responses are 'very often', 'often', 'sometimes', 'rarely', and 'most rarely'. The scores for the response categories are rated from 5 to 1 where 'very often' = 5, 'often'= 4, 'sometimes'= 3, 'rarely'= 2, and 'most rarely'= 1. The minimum and maximum possible scores of this scale are 38-226 respectively. In the case of sub-systems, the ranges of the scores differ. The scores for the microsystem range from 15-75, for mesosystem range, is from 21-105, for exosystem range is from 14-70, for macrosystem range is from 15-75, and for chronosystem range is from 5-25. Higher scores indicate the high quality of the social ecosystem and lower scores indicate less quality of the social ecosystem.

Procedure

The data collection procedure was carried out in classrooms with kind permission from and co-operation of the institution authority. At the beginning of the administration, the researcher read the instructions aloud. Students were directed to read the written instruction very carefully and answer every question in the way that was most true of them. They were told that there was no right or wrong answer, but it was necessary to answer honestly. They were assured that no one would know their responses since their names were not in the questionnaire, and their responses would be treated as strictly confidential. They were also told that if they face any difficulty in understanding an item, they can ask the researcher.

RESULTS

The main objective of the present study was to explore the relationship of adolescent's mental health with the social ecosystem and the specific objectives were to explore whether factors of the social ecosystem have a variation on adolescent's mental health and whether adolescent's mental health has a correlation with microsystem, mesosystem, exosystem, macrosystem, chronosystem and whether elements of the microsystem, elements of mesosystem, elements of exosystem, elements of macrosystem have a variation on adolescent's mental health.

Table 1 Correlation of mental health with the sub-systems of social ecosystem

Correlation of Mental Health with	r	Significance level
Ecosystem	.603	.001
Microsystem	.563	.001
Mesosystem	.549	.001
Macrosystem	.531	.001
Chronosystem	.284	.001
Exosystem	.174	.001

Correlation is significant at the 0.01 level

The result indicated that adolescent mental health is correlated (r=.603, *p*<.001) with his/her social ecosystem. The result also indicated that factors of social ecosystem separately correlated with adolescent's mental health. It means adolescent's mental health is correlated with microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Here microsystem had the highest correlation (r=.563, *p*<.001), mesosystem had the second-highest correlation (r=.549, *p*<.001), macrosystem had the third-highest correlation (r=.531, *p*<.001), chronosystem had the fourth highest correlation (r=.281, *p*<.001), and exosystem had the lowest correlation (r=.174, *p*<.001) with mental health which is also highly significant.

Table 2 Coefficients of sub-systems of Social ecosystem on mental health

Independent variables	ß	t	Significance level
Microsystem	.245	4.869	.001
Macrosystem	.379	8.605	.001
Exosystem	.249	5.933	.001
Mesosystem	.289	5.601	.001
Chronosystem	.183	4.641	.001

The partial standardized betas (ßs) indicated that five factors of the social ecosystem in the model were predictors of mental health. These factors were microsystem (ß=.245, *p*<.001), macrosystem (ß=.379, *p*<.001), exosystem (ß=.249, *p*<.001), mesosystem (ß=.289, *p*<.001) and chronosystem (ß=.183, *p*<.001).

Table 3 Regression analysis of sub-system of social ecosystem on mental health

Independent variables	R	R²	R² change	Significance level
Microsystem	.563	.317	.317	.001
Macrosystem	.651	.424	.106	.001
Exosystem	.669	.448	.024	.001
Mesosystem	.692	.479	.031	.001
Chronosystem	.711	.506	.027	.001

Results of regression analysis indicated that the strongest predictor of mental health was microsystem, which alone explained 31.7% of the variance. The result of the analysis further indicated that macrosystem was the second important predictor of mental health. R² change indicated that 10.6% of the variance in mental health was accounted for by the macrosystem, 2.4% of the variance in mental health was accounted for by the exosystem, 3.1% of the variance in mental health was accounted for by the mesosystem, and 2.7% of the variance in mental health was accounted for the chronosystem. R² indicated that these five factors account for 50.6% of the variance in mental health.

Table 4 F-test for regression of social ecosystem on mental health

	SS	Df	MS	F	Significance level
Regression	88137.210	5	17627.442	80.692	.001
Residual	86070.388	394	218.453		
Total	174207.598	399			

Predictor: Micro, Macro, Exo, Meso, Chrono, Dependant variable: Mental health score

The significant F test [F (5,394) = 80.692, *p*<.001] indicated that variation in mental health was accounted by joint linear influences of the microsystem, macrosystem, exosystem, mesosystem, and chronosystem.

Table 5 Regression Coefficients of the elements of microsystem on mental health

Elements of microsystem	ß	t	Significance level
Peer	1.440	5.291	.001
School	.332	8.320	.001
Family	.302	5.309	.001
Health services	.157	2.120	.001
Religious organization	.533	2.007	.001

The partial standardized betas (ßs) indicated that five elements of microsystem in the model were predictors of mental health. These factors were peer (ß=1.440, *p*<.001), school (ß=.332, *p*<.001), family (ß=.302, *p*<.001), health (ß=.157, *p*<.001), and religious organization (ß=.533, *p*<.001).

Table 6 Regression analysis of elements of microsystem

Elements of microsystem	R	R²	R² change	Significance level
Peer	.580	.337	.337	.001
School	.634	.402	.065	.001
Family	.658	.434	.032	.001
Health	.665	.442	.008	.05
Religious organization	.665	.447	.006	.05

Results of regression analysis indicated that among the elements of microsystem the strongest predictor of mental health was peer, which alone explained 33.7% of variance. The results of the analysis further indicated that school was the second important predictor of mental health. R² change indicated that 6.5% of variance in mental health was accounted for the school, 3.2% of the variance in mental health was accounted for the family, .80% of the variance in mental health was accounted for by the health, and .60% of the variance in mental health was accounted for the religious organization.

Table 7 Regression Coefficients of elements of mesosystem on mental health

Elements of mesosystem	ß	t	Significance level
Family and School	4.196	6.226	.001
Family and Peer	.247	5.384	.001
School and Peer	3.849	5.730	.001
Family and Health	.188	4.628	.001
Family and Religious organization	.089	2.119	.05

The partial standardized betas (ßs) indicated that five elements of mesosystem in the model were predictors of mental health. These factors were Family and the school (ß=4.196, $p<.001$), Family and Peer (ß=.247, $p<.001$), School and Peer (ß=3.849, $p<.001$), Family and Health (ß=.188, $p<.001$), and Family and Religious organization (ß=.089, $p<.001$). The above table indicated that the connection between school and religious organization and the connection between school and health services were not found as a predictor of adolescent's mental health.

Table 8 Regression statistics of elements of mesosystem

Elements of mesosystem	R	R²	R² change	Significance level
Family and School	.477	.228	.228	.001
Family and Peer	.607	.368	.141	.001
School and Peer	.632	.399	.031	.001
Family and Health	.662	.438	.039	.05
Family and Religious organization	.667	.444	.006	.05

Results of regression analysis indicated that among the elements of mesosystem the strongest predictor of mental health was interaction of family and school, which alone explained 22.80% of the variance. The result of the analysis further indicated that interaction of family and peer was the second important predictor of mental health. R² change indicated that 14.10% of the variance in mental health was accounted by the interaction of family and peer, 3.10% of the variance in mental health was accounted for the interaction of school and peer, 3.90% of variance in mental health was accounted for the interaction of family and health, .60% of the variance in mental health was accounted for the interaction of family and religious organization.

Table 9 Regression coefficients of elements of exosystem on mental health

Elements of exosystem	ß	t	Significance level
Neighbor	.689	12.129	.001
Local politics	.155	2.704	.05
Industry	.101	2.458	.05
Mass media	.085	2.080	.05

The partial standardized betas (ßs) indicated that four elements of exosystem in the model were predictors of mental health. These factors were Neighbor (ß=.689, $p<.001$), Local politics (ß=.155, $p<.05$), Industry (ß=.101, $p<.05$), and Mass media (ß=.085, $p<.05$). The results show that the element of exosystem (social services) was not a predictor of mental health.

Table 10 Regression analysis of elements of exosystem

Elements of exosystem	R	R²	R² change	Significance level
Neighbor	.580	.337	.337	.001
Local politics	.587	.345	.008	.05
Industry	.596	.355	.010	.05
Mass media	.601	.362	.007	.05

Results of regression analysis indicated that among the elements of exosystem the strongest predictor of mental health was neighbor, which alone explained 33.70% of variance. R² change indicated that .8% of the variance in mental health was accounted by the Local politics, 1.00% of the variance in mental health was accounted for the Industry .70% of the variance in mental health was accounted for the mass media.

Table 11 Regression coefficients of macrosystem elements on mental health

Elements of macrosystem	ß	t	Significance level
Cultural values	.299	6.196	.001
Ideology	.326	7.021	.001
Customs	.216	4.736	.001
Social class	.119	3.014	.05
Religious affiliation	.098	2.258	.05

The partial standardized betas (ßs) indicated that five elements of macrosystem in the model were predictors of mental health. These factors were Cultural values (ß=.299, $p<.001$), Ideology (ß=.326, $p<.001$), Customs (ß=.216, $p<.001$), Social class (ß=.119, $p<.05$) and Family and Religious organization (ß=.098, $p<.05$). The above results indicated that laws and ethnic groups were not found as a predictor of adolescent's mental health.

Table 12 Regression analysis of elements of macrosystem

Elements of macrosystem	R	R²	R² change	Significance level
Cultural values	.530	.281	.281	.001
Ideology	.618	.382	.100	.001
Customs	.644	.414	.033	.001
Social class	.652	.425	.011	.05
Religious affiliation	.658	.432	.077	.05

Results of regression analysis indicated that among the elements of macrosystem, the strongest predictor of mental health was cultural values, which alone explained 28.10% of the variance. The result of the analysis further indicated that Ideology was the second important predictor of mental health. R² change indicated that 10.00% of the variance in mental health was accounted for the Ideology, 3.30% of the variance in mental health was accounted for the customs, and 1.10% of the variance in mental health was accounted by the social class 7.70% of variance in mental health was accounted for by religious affiliation.

DISCUSSION

The current research organized into the four categories of Bronfenbrenner's ecological systems theory which includes the microsystem, mesosystem, exosystem, and macrosystem. The researcher has focused on the family, peer, school, religious organization and health services as elements of the microsystem. In the mesosystem, the connection between the adolescent's family and peer, family and school, family and health services, family and

religious organization, school and peer, school and religious organization, and school and health services were taken as elements.

The exosystem included factors such as industry, social services, mass-media, neighbors, and local politics. The macrosystem included factors such as social class, customs, cultural values, laws, ethnic group, religious affiliates, and the ideology of a society in which the adolescent lives.

It is not possible to ensure the condition of the mental health of adolescent at a satisfactory level without the integration among different factors of the social ecosystem. Sub-systems of the social ecosystem as a whole correlated with the social ecosystem by correlating each sub-system with mental health. The results reflect the multidimensional and complex nature of the human social context. Moreover, the result assumes that the condition of adolescent mental health depends on the effective social system.

Results of regression analysis indicated that among the sub-systems of the social ecosystem, the strongest predictor of mental health is microsystem. The overall results of the microsystem indicated that among the five elements of microsystem *peer* is the strongest predictor of adolescent mental health. Then *school* and *family* are the next level predictor of adolescent mental health. Though the *health services* and *religious organizations* predict the adolescent mental health at a lower level, it is also found significant. The result of the analysis further indicated that the macro system was the second important predictor of mental health. The overall results of the macrosystem indicated that among the five elements of macrosystem *cultural values* are the strongest predictor of adolescent mental health. Then *ideology* and *religious affiliation* is the next level predictor of adolescent mental health. Though *custom* and *social classes* predict mental health at a lower level, it is also found significant. The results of the analysis indicated that among the sub-systems of the social ecosystem, the mesosystem is the third strongest predictor of mental health.

The overall results of the mesosystem indicated that among the five elements of mesosystem interaction of family and school is the strongest predictor of adolescent mental health. Then the interaction of family and peer is the second strongest predictor of adolescent mental health. Interaction of family and health, the interaction of school and peer, is the next level predictor of adolescent mental health. Through the interaction of family and religious organization predict mental health at a lower level, but it is also found statistically significant. The results of the analysis indicated that among the sub-systems of the social ecosystem chronosystem is the fourth-strongest predictor of mental health. Elements within this system can be either external, such as the timing of a parent's death, or internal, such as the physiological changes that occur with the development of a child. Time plays a crucial role in human development. The results of the analysis further indicated that exosystem is the fifth important predictor of mental health. The overall results of exosystem indicated that among the elements of exosystem, *neighbour* plays the most important role in adolescent mental health. Other elements such as *industry*, *local politics*, and *mass media* also have a significant role in adolescent mental health.

Results indicated that the sum of five factors of the social ecosystem accounted for 50.6% of the variance in mental health. There are family, relatives, friends, peers, and community, work, school, and neighbour, political, social and religious structures with whom an adolescent interacts on a daily basis. This exposes the adolescent to several daily challenges while providing them with resources innate in their ecology. Although disharmony with an

agent in the system can be a potential stimulation to trigger a disturbance in mental health functioning, an awareness of the adolescent's ecology may provide additional resources for the management of the condition and person for higher levels of function and for primary, secondary or even tertiary level prevention and mental wellbeing.

CONCLUSION

Results of the present study also have significant practical implications. The findings of this study stated that the social ecosystem plays a vital role in adolescent mental health. Social ecosystem and adolescent mental health have a positive correlation. This indicated that adolescent who experiences social ecosystem as positive have a high level of positive mental health. The transition from childhood to adulthood involves lots of skill and knowledge, developing physical and mental capacities, improving social competencies, and interactions. All these things are interrelated, and any environmental factor can have an effect on multiple aspects of adolescent development. The findings of the present study can help to identify the specific environmental factors by which the adolescent's mental health is affected. The result of this study suggests that not only family-centred interaction but also peer, school, neighbour, religious organization, health service, local politics, etc based programs are necessary to reduce mental health problems of the adolescent. Sometimes people are trained to focus on the individual adolescent rather than on the systems that support the adolescent to behave in a certain way. Through this study, it is ensured that the social systems would be our focus to confirm the proper development of an adolescent.

The findings of the present study also can be applied in fostering of societal attitudes, because societal and cultural values, customs, tradition also have an important role and norms for the development of adolescent mental health. Thus, it is the duty of the nation to introduce and maintain the culture.

Positive mental health is a resource for population wellbeing and long-term social affluence of humanity. In Bangladesh, the National Education Policy (2010) has committed to introducing effective student-counseling programs in schools, realizing that students often become confused and misled because of the multiple problems they face. To the researcher's knowledge, there is not enough study in Bangladeshi context regarding the relationship of social ecosystem and adolescent mental health. The findings from this study suggest that future mental health research should consider the social ecosystem as an important developmental condition during adolescent periods as well as to ensure their positive mental health also.

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