Over-weight and Over-schedule Mediating the Relationship of Maternal Stress and Decision Making with Emotional and Social Impairment of Adolescent

A Thesis Submitted to the Department of Psychology, University of Dhaka, Dhaka, Bangladesh, in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Psychology

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Declaration

I **Rajeka Fardosh Tany** PhD Research Scholar hereby declare that the work embodied in this thesis entitled "**Over-weight and Over-schedule Mediating the Relationship of Maternal Stress and Decision Making with Emotional and Social Impairment of Adolescent"** is a result of my original and independent research work carried out and submitted by me under the supervision of **Professor Dr. Mahfuza Khanam**, Department of Psychology, University of Dhaka, Dhaka, Bangladesh. I further declare that this thesis has not been submitted anywhere in any form for my academic degree.

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This is to certify that **Rajeka Fardosh Tany** worked under my supervision as a PhD Fellow, Registration No: 34, Session: 2017-2018, Department of Psychology, University of Dhaka, Dhaka, Bangladesh. It is my great pleasure to forward her thesis entitled" **Over-weight and Over-schedule Mediating the Relationship of Maternal Stress and Decision Making with Emotional and Social Impairment of Adolescent"** which is original research carried out at the Department of Psychology, University of Dhaka. It is mentioned that **Rajeka Fardosh Tany** has fulfilled all the requirements for submission of the thesis for award of the degree of **Doctor of Philosophy** in Psychology. I wish her every success in her life and career.

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Abstract

Maternal stress is associated with their adolescents' overweight or obesity, fast food consumption, less physical activity and variety of behavioral problem. But few researches have done on this topic. For this reason, present research has been undertaken. Objective of the current research was to find out whether overweight and over schedule have any mediating relationship of maternal stress and decision making with emotional and social impairment of adolescent. Two hundred eleven over weight adolescents (11-14 years) were selected purposively from Dhaka based different public and private schools. Their mothers were also included in the study. Another one hundred twenty-nine adolescent participants of normal body weight and their mothers were also selected as control subjects. Life stress questionnaire, Melbourne Decision Making Questionnaire (MDMQ), Over scheduled scale for adolescents and BECK Youth Inventories of Emotional and Social Impairment were used in the study for collecting information from participants. Parallel mediation analysis, Pearson product moment correlation, descriptive statistical analysis, t-test and F test were used to analyze the scores. Findings revealed that, maternal stress has a significant and positive direct effect on adolescents overweight (a=.51) and over scheduling (d=.59) and the direct effect of adolescents' overweight and over schedule on their emotional and social impairment is statistically significant(b=.35), (e=.52). Maternal stress has a significant and positive indirect effect on adolescents emotional and social impairment(c'=.49). Maternal decision making has a significant and positive direct effect on adolescents overweight (a=.47) and over schedule (d=.58). The direct effect of adolescents' overweight and over schedule on their emotional and social impairment was statistically found significant(b=.35), (e=.52). Maternal decision making has a significant and positive indirect effect on adolescents emotional and social impairment(c'=.45). Results of correlation indicated that adolescents over schedule is positively correlated with emotional and social impairment (r=.785), maternal stress (r=.593) and maternal decision making (r= .575). Emotional and social impairment of adolescents is positively correlated with maternal stress (r= .524) and maternal decision making (r= .507). Maternal stress is also positively correlated with maternal decision making (r= .624). Overweight adolescents were more over scheduled($\bar{x}$ = 66.94) and they were emotionally and socially more impaired($\bar{x}$ =108.33) than normal weight($\bar{x}$ =

40.04, 59.71) adolescents. Results indicated a significant difference in stress and decision making between normal weight adolescents' mothers and overweight adolescents' mothers. Few demographic variables were also included in this study. Result shows that, over schedule and emotional and social impairment varied significantly according to birth order (F (3,337) =14.89, 16.57, $p<0.05$) and number of siblings (F (3,337) =4.37, 4.33, $p<0.05$). There was significant difference between house wife mothers' adolescents and service holder mothers' adolescents in emotional and social impairment but not in over schedule. Finding also showed that, adolescents over schedule and emotional and social impairment vary significantly in the basis of maternal educational background, monthly family income level and mother's taken any psychological help in past. Finally explained that, there was significant difference in stress not decision making between mothers taken psychological help in past and never taken any psychological help mothers.

Key Word: Adolescence, Over Schedule, Stress, Decision making, Emotional and social impairment

Introduction

The phenomenon of over-scheduled children and adolescents has become the wave of the new era. The concept of a carefree childhood with time for leisure play and free time is becoming less of a reality while over-scheduling, over-busyness, too much involvement with activities and loss of family time is becoming more of a reality for many children (LeFebvre, 2005). Children today may be spending a large fraction of time in highly structured activities, such as sports programs, religious-sponsored activities, singing, dancing, painting, swimming and other school-sponsored programs which leave them with little bit time for spending quality time with their family and doing relaxing activities such as reading (Hofferth & Sandberg, 2001). Health America published a report in 2006.The finding was, out of 882 adolescents, 41 percent between the ages of 9 to 13 felt stressed and anxious all of the time or most of the time in their daily life, because of too much involvement with lots of activities.

Most of the parents have positive intentions for their child. They enroll and involve their children and adolescent in variety of activities because they want to give their son and daughter more opportunities to participate in numerous activities, enabling children to develop skills, trained, qualified and build talents that would be beneficial to them as they grow into adulthood.

But always the motivation of parents is not beneficial for their children. Some parents pressure their children or adolescents to achieve success in the curiosity or interest of their personal choice and wish. But some parents use their own children fulfill their unfinished childhood dreams. Sometimes they are motivated and influenced by social and environmental factors. They might also believe that, their kids will miss out on potential experiences if they are not doing what other kids are. But most parents usually just want what seems best for their children. For this consequence children can easily become overscheduled. Parents desire their kids to perform their activities emotionally, academically and physically. However, pushing their child to be perfectionist academically may have surprising and unexpected repercussions. Many youth and children thrive in a crucial social, emotional cultural, environmental and academic environment. The vast array of academic and nonacademic extracurricular activities

involves to school going children may be a headache for young generation and their parents both. Most of the time parents can help their kids to establish their talents and passions. Also learn how to develop themselves and encourage them to enrich their self esteem. And, of course, parents and teachers want them to look like well behaved, established, accomplished kids to their future life. But parents or teacher doesn't want to run them ragged or turn them into stressed-out, anxious automatons.

Hyperactive parenting is harmful for growing next generation. It keeps children and adolescents from becoming independent and grow own capacity to self believe because it deprives youth of those experiences which teach and realize them, eventually, how to be able to make their own world in their personal way to discover the world. Hyperactive parenting and over-involvement in academic and nonacademic activities may also contribute to large numbers of kids and adolescents being diagnosed as ADD, ADHD, stressed, depressed, and to the many adolescents who give up and get dragged down by drugs, disruptive activities, alcohol, juvenile delinquency, premature sex, STD, childhood pregnancy (Fredricks, 2010).

1.1 Adolescence

The word "Adolescence" is Latin in origin, derived from the verb "adolescence" which means 'to grow into adulthood'. In most of societies, adolescence is a time of growing up, of moving from the immaturity of childhood into the maturity of adulthood. The metamorphic changes of adolescence turn a child to an adult.

1.1.1 Definition of Adolescence

Through analysis of historical documents, it can easily be demonstrated that the definition of adolescence changes as society evolves. The term 'Adolescence' may be defined in many ways and from different perspectives. A physiological definition of adolescence has been proposed by Douvan and Gold (1966) and Jones (1949). According to that definition, adolescence begins when the reproduction organs and secondary sex

criteria (like breasts, body hair) start to change in late childhood; the closing of adolescence is attached with the total maturation of reproductive system.

Adolescence is a complex, multi-system transitional process involving progression from the immaturity and social dependency of childhood into adult life with the goal and expectation of fulfilled developmental potential, personal agency, and social accountability (Sacks, 2003).

“Adolescence” is a dynamically evolving theoretical construct informed through physiologic, psychosocial, temporal, and cultural lenses. (Fletcher, 2016).

According to Styne (2004), Adolescence can be defined biologically, as the physical transition marked by the onset of puberty and the termination of physical growth; cognitively, as changes in the ability to think abstractly and multi-dimensionally; or socially, as a period of preparation for adult roles.

According to WHO (2022), Adolescence is a transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO) also defines an adolescent as any person between ages 10 and 19.

Socio biological definition of adolescence uses several standards for starting and ending of adolescence period. It defines the beginning of puberty (or sexual maturity) as the beginning of adolescence whilst using social characteristics to determine its finishing. From this perspective adolescence finish when young person has founded an adjustment style balance with the demands of their social universe and when the society recognizes youths beginning to adulthood.

From the cognitive perspective, as children come to develop thinking processes that are independent of concrete and observable objectives in the immediate environment to include abstract thoughts and meta cognition (thinking about thinking) they are thought to be qualitatively different and thus emerging into adolescence. Science cognitive development does not occur all at once but happens gradually in a complex manner a

cognitive definition of adolescence may best be seen as limited in its ability to set out precisely the beginning and ending of adolescence.

Adolescence should be viewed as a period of transition, a period that differs in length for each individual. Adolescence is a gradual phasing into adulthood. In which the youth is given increasing responsibilities with each new grant of freedom. Zimiring (1982) calls this view a learner's permit theory of adolescence. From the above discussion in can be said that adolescence is a developmental period characterized by multiple changes in virtually every aspect of an individual's life. The combination of biological changes and social transitions creates an increasingly complex environment that exposes adolescents to a widening array of stress or and challenges.

1.2 Over Scheduled

A compressed definition of an over-scheduled child is, a child who has very little free time in which they can pursue and enjoy their hobbies or relax, but instead spend much of their time, when not in school or doing basic personal care needs (sleeping, eating and bathing), doing multiple structured activities at any given time (Hofferth & Sandberg, 2001).Children and adolescents are overpressure with lots of activities, which actually harmful their personal growth, development, well-being and family functioning. It is depending on three basic propositions which is applied for children and adolescents. First, the motivation for involving in embodied activities is come from outer pressures (like pressure from family, parents, teachers, school authority, and career experience). Second, youth are realized to participate in academic and non-academic functions to extreme. Third, children or adolescent and their established family structure are perceived to be at highly danger due to the excessive external and environmental pressures placed upon children and adolescent.

Which students were over-scheduled in lots of activities search that the advantage of involving in out-of-school performance may really decrease. Overscheduled children may be tired, irritable, fatigue, drowsy and show few interests in activities. Over scheduling like too much physical involvements may result in some students forcing themselves too

far with their creativity and potentiality. Participation in activities has been linked to social, cultural and academic success, yet over-scheduling can be too stressful for young adults as it may consume too much of their leisure time.

Most of the time overscheduled children and adolescents may have a decrease in creativity and productivity in daily life activities. Signs of overscheduled kids may exhibit include headaches, stomachaches, withdrawal behavior. Sometimes overscheduled can lead to stress, depression and anxiety in young generation. Symptoms of overscheduled include irritability, hopelessness, loss of pleasure in favorite activities that a child once enjoyed; changes in sleep and appetite, reduced energy and social interactions, uneasy to communicate others and a decline in performance at school.

1.3Emotional and Social Impairment

Different developmental psychologists describe social and emotional impairment in different ways and use their own terminology in their definition. According to Herbert & other (1991), “Emotional and behavioral problems refer to a large and heterogeneous collection of disorders ranging from depression, anxiety, inhibition and shyness to noncompliance, destructiveness, stealing and aggressiveness”. The definition of emotional and social impairment also changes with the path of time. Social and emotional impairment can vary in type as well as its intensity. The definition also to a great extent depends on particular cultural and social beliefs and on cultural expectations and norms for right behavior for age and sex group.

In study and classification of emotional and social problems in adolescents a useful phenomenological distinction has been made between disorder that are internalizing and those that are externalizing in their primary symptom presentation (Rosenblum & Lewis,2003). However, so called internalizing and externalizing disorders can have significant symptoms overlap. Internalizing disorders are those in which the adolescents are turned inward and are manifested in emotional and cognitive distress such as depression, anxiety, withdrawal. Internalizing disorders are for the most part converted and present a major challenge in their evaluation and identification. Externalizing

disorders are those in which the adolescents' crisis and problems are turned in to behavioral problem and manifested bigger day by day. Common externalizing problems during adolescence are disruptive behavior, hyperactivity, truancy etc. Externalizing problems also include psychological and behavioral disturbance that do not constitute formal DSM-V diagnosis but nevertheless represent problem behaviors of sufficient severity or frequency to cause problems in school and community adjustment. Such problem behaviors include excessive anger, aggression and delinquency to name but a few. Externalizing problems tend to cause distress to others, such as parents, teachers and peers. Two main externalizing problem in adolescents which are anger and disruptive behavior.

1.4 Stress

Physiological stress is an organism's response to a stressor such as an environmental stimulus. Stress is a process of reacting to a challenge. In stressful event, the body's way to respond to stress is by sympathetic nervous system activation which results in the fight or fight response in human. Stress typically describe a positive or negative condition that can have an impact on a person's mental and physical well being.

Stress refers to the consequences of the failure of an organism, human or animal body to respond appropriately to emotional or physical threats, whether actual or imagined (Selye, 1995).

In a medical or biological context, stress is a physical, mental or emotional factor that causes bodily or mental tension (William, 2018). Stresses should be recognized by external or internal sources. Skinner (2003) defined stress as, a reaction of a particular individual to a stimulus event. According to Oxford English Dictionary "Stress as a response to anxious or aversive stimuli". When stress is physically noted then it represents huge range of physiological responses which occur as a direct output of a stressor causing an upset in the homeostasis of organisms' body. On urgent disruption of either psychological or physical balance the body responds by stimulating the immune system, endocrine system and nervous. The reaction of those process causes a number of physical changes that had short- and long-term side effects on organisms' body. It is

automatic response to environmental stimulus. Stress related symptoms are usually described by using adrenaline production and physical alarm such as short-term resistance as a copying mechanism, and exhaustion, as well as irritability, muscular tension, inability to concentrate with others and a variety of physiological reactions like as headache and elevated heart rate, pulse rate etc. Stress is a term in psychology and biology which has in more recent decades a common issue of popular talk.

1.5 Decision Making

Decision making can be regarded as the process resulting in the selection of a belief or a course of action among several alternative possibilities (Bruin & Fischhoff, 2007). Decision-making procedure produces a last choice which should or should not prompt response. Decision making is the practice of defining and selecting substitute based on the worth and favor of the decision maker. Decision making is one of the main activities of human life and main part of any procedure of embodiment. The importance of decision making in psychology or any field of human attempt can never be underrated. Hall, Ariss and Todorov (2007) described a delusion of knowledge, meaning that as individuals assignation too much wisdom it really intervenes with human ability to make logical decisions.

The system of decision making is an important and complex process of human thinking like different factors and way of action interfere in it, with different outcome. Connolly and Zeelenberg (2002) define it is a series of cognitive activities performed consciously, which include the materials from the situation in an appointed time and place. Narayan and Corcoranperry (1997) weigh decision making as the interaction among a problem that needs to be disposed and a person who desire to resolve it within a earmarked situation. Human achievement with regard to decisions has been the subject of effective study from variety of perspectives: at first psychological. Testing particular decisions in the context of a set of necessities, favor and values the particular has or quest. Secondly, cognitive, that define, the decision-making procedure look on as a continuous system mobilized in the interaction with the condition. And thirdly normative, that was the exploration of individual decisions anxious with the rationale of decision making and logically and the invariant option it leads to.

When tempting to practice a good decision, a person must weigh the positive and negative of each option and think all the substitutes. For efficient decision making, a person must be able to prognosis the outcome of each option as well and based on all these items, determine which option is the best for that particular environment.

Life is full of options at every eyewink of time. There are sections of possibilities in front human being to pick from. Person need to select one course of action from all available options based on people judgments. That is what constitutes making a decision. Right decisions are the ovation of judgment while wrong decisions are scopes to prepare from and emend human strategy. The value of the decision making in life is huge, as what people at least become, is an outcome of the decisions people made in the past. People are what their selections and decisions make them to be.

1.6 Mother Adolescent Relationship

Many mothers watch their children and adolescents are changing from allegation being into someone who is noncompliant, oppositional and averse to maternal norms. Mother often clamps compact and put more stress on the adolescent to follow to their standards. But the transition from childhood to adulthood is an extended travel with many hills and valleys. Adolescents are not going to conform to adult criteria on right way. Mothers who realize that adolescents take too much time ‘to get it right’ usually deal more competently and quietly with adolescent trespass than do mothers who need early conformity to maternal norms. Yet other mothers, rather than placing massive demands on their adolescents for consent, do virtually the converse, letting them do as they please in a very permissive way. A modest level of friction with mothers in adolescence is not only necessary but may also serve a positive developmental function.

1.7 Mother Adolescent Conflict

Early adolescence is a transition time when mother adolescent conflict escalates far parent child conflict (Montemayor, 1983; Montemayor & Hanson , 1985). This increase conflicts may be due to a number of components. Such as the physiological variations of puberty, cognitive changes involving increased idealism and rationale reasoning, social

changes indicated on independence and identity, violated expectation, physical, cognitive and social changes in parents associated with middle adulthood. Mother adolescent dispute reduce in late adolescence (Laursen & Collins; 1994). Although conflict with mother does increases in early adolescence.

Research found that, number of social relationships, adolescents indicated having more discord with their mother than with anyone else imitated in order by friends, romantic partners, siblings, fathers, other adults and peers (Laursen, 1995). Another research study, found a high degree of friction characterizes some mother adolescent relationships. It has been estimated that in about 20% of families, mothers and adolescents involve in prolonged, intense, periodic, unhealthy conflict (Montemayor, 1983). And this conflict is associated with a number of adolescent problems like moving away from house, juvenile delinquency, excessive eating, increase school dropout rates, pregnancy, early marriage, membership in religious rituals, over pressure from parents and drug abuse (Collins, 1996).

1.8 Relationship between Adolescent and Maternal Issue

Relationship between adolescents and their mothers during adolescence period is related to less degree depression, stress, anxiety and feelings of personal in adequacy. Securely healthy adolescents are few to involve in drug or substance abuse, aggressive attitude and behavior, antisocial, unprotected sexual activity, rush driving, eating problem like over eating and being obese. Adolescents with positively attached to their mothers is important to reduce the transition more effectively and recline more intimate relationships with parents, siblings, family members, friends and peers. They demonstrate less concern about isolation and social refusal than do insecurely attached adolescents and they show more adaptive coping strategies.

Mother adolescent relationships sustain important transitions during adolescence period including a reduce in time spent with their mothers and a shift from allegiance to mutual exchange. Mothers play a prominent role in confirmatory secure attachment during these transitions. Adolescents favor from their maternal support that motives autonomy

development yet confirms continued controlling and emotional connectedness. Specific parenting skills that rise attachment security and autonomy development include emotional and psychological availability, active listening, warmth, behavior monitoring, limit establish, acceptance of individuality and interlocution of regulations and responsibilities. Maternal support during stressful periods of transition (like entry of high schooling) predicts positive adolescent adjustment.

1.9 Literature Review:

Barber (1999) noted the possible negative consequences of over schedule activities. Over engagement with each and every spare minute scheduled in different activities, students may find out negative consequences for over participation**.** Reeves (2008) stated that students may lose their focus on academics when they are becoming too much busy with multiple activities. When students get overscheduled, they can be overthrowing themselves too lean, which may lead to spending less time studying and preparing for class.

Over-scheduling not only have impact on children academics and commitment level, but also it can influence them psychologically, emotionally and physically which could lead to tensed, stress, fatigue, anxious and burn-out (Thompson,2008).

Another study revealed that, over schedule children and adolescents feel too much stress for better performance that they develop pressure and stress related symptoms like insomnia, headaches, stomachaches, overweight, anxiety, stress and depression (Gilbert, 1999). Excessive involvement in many other activities could plausibly heighten distress of family and leisure time. Those possibilities are highly associated with negative impact on children future life. Bredehoft et al (2001) found that, 74 college students who were persisting in over schedule activities, they were suffering from dysfunctional attitudes, poor self-esteem, and lack of self-efficacy.

Over participation does not have better value for a children and adolescents. Scientific researches have found interesting outcome among activite participation and development. Those study suggests that, there is a threshold in which the number of activities no longer pretend positive impact on developmental effect (Fredricks, 2010).Outer pressure from adults and multiple activities are causes of bad psychosocial adjustment in children and

adolescents and decrease their bonding with parents (Elkind, 2001; Gilbert, 1999; Rosenfeld & Wise, 2000). Excessive pressure from parents, teachers, school and other adults may be led to vulnerable adjustment for children and adolescent who are always busy in multiple organized activities. One qualitative research completed in 2003 believes that, participation in much more organized activities may limit the time for children and adolescents have for leisure activity and can force the relationship the child has with his or her parents (Lareau, 2003).

Adolescents with much more activities were related to poor grades, excess absences from school, few time engage on homework, grown likelihood of dropping out of school, greater psychological distress, childhood trauma, drug and alcohol use, and juvenile delinquency (Steinberg et al. 1982; Lillydahl 1990; Steinberg & Dornbusch 1991; Steinberg, Fegley, & Dornbusch 1993; Mael, Morath, & McLellan 1997; Schoenhals, Tienda, & Schneider 1998; Valois et al. 1999; Hansen & Jarvis 2000).

Over-involvement and excessive pressure may contribute to the large numbers of children and adolescents being diagnosed as ADHD, ADD, depressed, detach from themselves and many adolescents who have given up and down by using drugs, alcohol, and premature sex (Hofferth & Sandberg, 2001). Overscheduled and excessive participated kids and adolescents may exhibit include headaches and stomachaches, withdrawal behavior, reluctance in multiple activities, and changes in eating habits and sleep pattern. It includes irritability, hopelessness, loss of pleasure in activities that children or adolescents sometimes enjoyed, rescheduled sleep pattern and appetite, decrease energy and reduce social interactions, and a decline in good performance at school (Wiseman & Beck, 1978). Another assumption is that if students are over-extended, that may negative effects on their self-esteem and could lead to self-destructive behavior and also negatively attached with social adjustment, academic success and attendance (Bredehoft, Dawson, & Clarke, 2002).

The result of Hofferth and Sandberg (2001) revealed that, adolescents are sometimes overscheduled with complex schoolwork, extracurricular activities, and more, which makes it difficult to achieve success in all field. Those students in high school who are committed to excessive activities or who spend too much hours in multiple activities are

likely to show a negative impact on their academic and nonacademic self-efficacy, as they are few able to master skills when they have so many demands to fulfill.

Most of the adolescent are not able to balance their time among academic performance, family time, socializing, and relaxing because of excessive external pressure. The findings of the research showed that, excessive pressure and multiple activities may be stressful or problematic for their proper development for adolescents. And most of the time over involvement is the main source of unhealthy development of adolescents (Mahoney et al, 2006). Other research finding showed that, approximately 60% of children and adolescents involved in structure nonacademic activities (LeFebvre, 2005). Through children and adolescents are over pressure, excessive scheduled and suffering day by day hassle.

In adolescence period, every parent plays an important role for their children or adolescents' proper developments. Maternal psychological stress and depressive symptoms have been associated to barriers to develop healthy lifestyle and can decrease pro-active over weight and obesity related parenting practices (Lohman & others, 2009 McCurdy & others, 2010). Another study found that, negatively influencing mother-child relation and the highly risk unhealthy maternal behaviors are positively associated (Bianchi, 2000).

Maternal psychological stress and unstable of decision-making behavior may affect their parenting style or mother child relation. One research found that, those mothers are experiencing high degree of psychological stress they may spend less time with their children (Gundersen, Mahatmya, Garasky & Lohman, 2011) and may be poor responsive in their involvement with their adolescents and children (Clowtis & others, 2016). Maternal depressive symptoms, like as negative emotion or feelings and less activity, may influence child weight related behaviors by directly affecting their parenting style and child rearing behaviors, reducing maternal sensitivity to and nurturance of the child's needs (O'Brien & others, 2007). There are many researches which suggest that maternal psychological stress is related with many negative outcomes in children (Choe et al., 2005).

Another research indicated that maternal problem solving and decision-making skills were associated with adolescent's substance use. If maternal decision-making skills

increased then adolescent's substance using behavior decreased (Herrick & other, 2001). Maternal poor decision-making is also related to internalizing problems of adolescents (Rawal et al., 2013). Ernst et al. (2003) found that, Maternal poor decision-making, as reflected in enhanced responses to rewarding outcomes and deficits in the activity of motivational circuitry during anticipation of rewards, is generally related to their adolescents externalizing behaviors.

Burrows and Cooper (2002) found that, over weight and unusual body shape preadolescents school girls is related to decrease their self-esteem and increase psychological problems. Researchers also indicated that normal weight adolescents have less risk than over weight adolescents. Another research indicated that, overweight children and adolescents suffer more from depression and anxiety than normal weight adolescents (Goodman & Whitaker ,2002). Pine, Goldstein, Wolk and Weissman (2001) found that, young obesity can predict the psychological and behavioral problem of them. Obesity and peer group rejection is correlated among adolescents (Latner, Stunkard, & Wilson, 2005). In elementary school, over weight adolescents report unsatisfactory peer group relations like social rejection. Most of time their body weight and shape is the reason of bullying (Gunnarsdottir, Njardvik, Olafsdottir, Craighead, & Bjarnason, 2012).

1.10 Rationale of the research work:

Today over scheduled is regarded as a problem. It may influence children and adolescents' everyday life, academic achievement, and even contribute to stress which is well known to cause many other problems. When students get over-scheduled, they might be spreading themselves too thin, which will cause to give less time to their studies and preparation for class, hobbies, eating pattern, favorite activities, sleep and so on. This over schedule is one of the prominent causes of overweight. Too much busy adolescents did not enough time to eat properly. They get easy excess food specially in lunch time and evening snacks. Unhealthy food like deep fried and cold drinks were taken most of the time. So, they are becoming easily gain unnecessary body weight.

The aim of education is not only to communicate some factual knowledge to the learners but also to make sure his or her overall development and balanced personality. Children or adolescents need mental, physical, social, moral, intellectual, spiritual and emotional

development. All these requirements of a children or adolescents are possible only with proper using of time with balance schedule.

Parenting is a very difficult and stressful job. When a child is not provided balance schedule from mother then they may suffer from different type of impairment.

The role of mothers is especially important because mothers are still the most important caregivers (Bianchi, 2000), and manage most of the day-to-day child-care tasks (Masciadrelli, 2004). Research evidence suggests that maternal mental health issues (i.e., psychological stress, depressive symptoms and decision making) are associated with increased risk rates of weight gain, obesity and related weight-related behaviors (i.e., eating, physical activity and sleep patterns) in children and adolescents (Tate, Wood, Liao & Dunton, 2015). Present study's aim was to investigate the link of both maternal stress and decision making with adolescents' overweight and over schedule. On the basis of past studies, researcher hypothesized that maternal stress and decision making are linked with adolescents' weight gaining. Those also did not maintain healthy schedule for adolescents. This research also found that, maternal general perceived stress and decision making may reflect a broader personality construct on how mothers more generally react to their adolescent's personal development.

The researchers interviewed secondary school students, teachers, parents, educator, psychiatrist and child psychologist to discussed about over scheduled. Most of the persons may have negative attitude towards over scheduling. At the same time adolescents throughout the world are continually being over-scheduled with activities (academic, sports, extra curriculum activities, religious programs, etc). This over-scheduling create stress, depression, anxiety, anger, disruptive behavior, mal-adjustment, fatigue, low-self-esteem, poor academic performance and they become over weight (Hofferth & Sandberg, 2001). This overscheduled also destroyed creativity, productivity and emotional cues (Bredehoft, Dawson, & Clarke, 2002).

Current study is a unique theme for Bangladeshi context. In past, most of the adolescents related researches are based on their physical development and change related. Over scheduling is a new concept for Bangladesh. Lots of parents and teachers are practicing over schedule without knowing its negative impacts. Those negative effects can destroy adolescent's future life. Young generation are the pillar of the nation. If they are suffering

in psychological or physical problem, they did not carry the whole development of the society. This over involvement with lots of activities is a reason of fatigue. Those fatigue and bored adolescents are easily gain their body weight become obese. This research presents a picture of over schedule adolescents and its negative effects. This research can be helpful to family practitioners by creating a comparison between different segments of the over involving adolescents and by illustrating the effect of over scheduling.

1.11 Objectives of the research work

General Objective

To find out whether overweight and over schedule have any mediating relationship of maternal stress and decision making with emotional and social impairment of adolescent.

Specific Objectives

1) To investigate whether adolescents over schedule, maternal stress and decision making have any relationship with adolescents' emotional and social impairment.
2) To explore the differences in over schedule and emotional and social impairment of adolescents according to gender and body weight.
3) To compare in over schedule and emotional and social impairment of the adolescents according to their birth order.
4) To find out the difference between sibling and no sibling adolescents in their over schedule and emotional and social impairment.
5) To find out the differences in over schedule and emotional and social impairment of adolescents according to their mother's job status, educational level, monthly family income and uses of psychological help.
6) To find out the differences in maternal stress and decision making according to their job status, educational level, monthly family income and their uses of psychological help.
7) To explore the difference in stress and decision making between normal weight and overweight adolescents' mothers.

Methods

2.1 Participants: Total 340 adolescents and 340 of their mothers were the respondents of the present study. Among them 211 over weight adolescents were selected purposively from different public and private schools of Dhaka city. Exact numbers of overweight students were unknown in Bangladesh and there was no reliable evidence for number of overweight adolescents. For that reason, statistical formula was not applicable for collecting the number of participants from population. In Dhaka city total 647 schools were listed in banbeis. For representative participation Dhaka city was divided into two divisions. That was Dhaka north city corporation and Dhaka south city corporation. In each city corporation, five schools were selected randomly by using lottery method. Same strategy was following to select schools from both Dhaka north and south city corporation. Selection procedure was followed by banbeis school list for Dhaka city. Selected schools list and number of participants were given below.

Table 2.1

Selected school list from Dhaka north city corporation

Name of the schools	Number of participants
Motijheel Model School and College	30
Willes Little Flower School and College	30
Dhaka Collegiate School, Dhaka	30
Dhaka Govt. Muslim High School	40
Pogose Laboratory School and College	40

Table 2.2

Selected school list from Dhaka south city corporation

Name of the schools	Number of participants
Milestone School & College	30
Mirpur Government High School	30
Tejgaon Government High School	30
National Ideal School (Banasree Campus: 1)	40
Ideal School and College, Banasree Branch	40

The age range of the participants was 11-14 years, because the BECK Youth Inventories of Emotional and Social Impairment are applicable for 11 to 14 years adolescent children. Students were selected from class six to class ten. Their mothers were also included in the study for measuring their stress and decision-making style. Now a days over weight adolescents are common in Dhaka city. Over weight is most important factor in this study. So main focus group is overweight adolescents. After covid 19 and almost two years of lockdown and staying home, most of the adolescents become over weight or obese. That's why over weight participants found more than normal weight participants. Standard body weight and height of adolescents according to their age is presented in below according to WHO. BMI table-based graphs were also presented below. These graphs were ddeveloped by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000). Another 129 adolescent participants of normal body weight and their mothers were also selected as control subjects.

Table2.3

Boys' standard body weight and height according to age

Age	*Weight [lb/ kg](Girl/boy)*	*Height (Girl/Boy)*
11 year	78.5lb (35.6 kg)	56.5" (143.5cm)
12 year	88.0lb (39.9 kg)	58.7" (149.1cm)
13 year	100.01lb (45.3 kg)	61.5" (156.2cm)
14 year	112.01lb (50.8 kg)	64.5" (163.8cm)

Source*:* WHO/IASO/IOTF. The Asia-Pacific perspective: redefining obesity and its treatment `Health Communications Australia: Melbourne, 2000.

Table 2.4

Girls' standard body weight and height according to age

Age	*Weight [lb/ kg](Girl/boy)*	*Height (Girl/Boy)*
11 year	81.51lb (36.9 kg)	56.7" (144cm)
12 year	91.5lb (41.5 kg)	59.0" (149.8cm)
13 year	101.01lb (45.8 kg)	61.7" (156.7cm)
14 year	105.01lb (47.6 kg)	62.5" (158.7cm)

Source*:* WHO/IASO/IOTF. The Asia-Pacific perspective: redefining obesity and its treatment `Health Communications Australia: Melbourne, 2000.

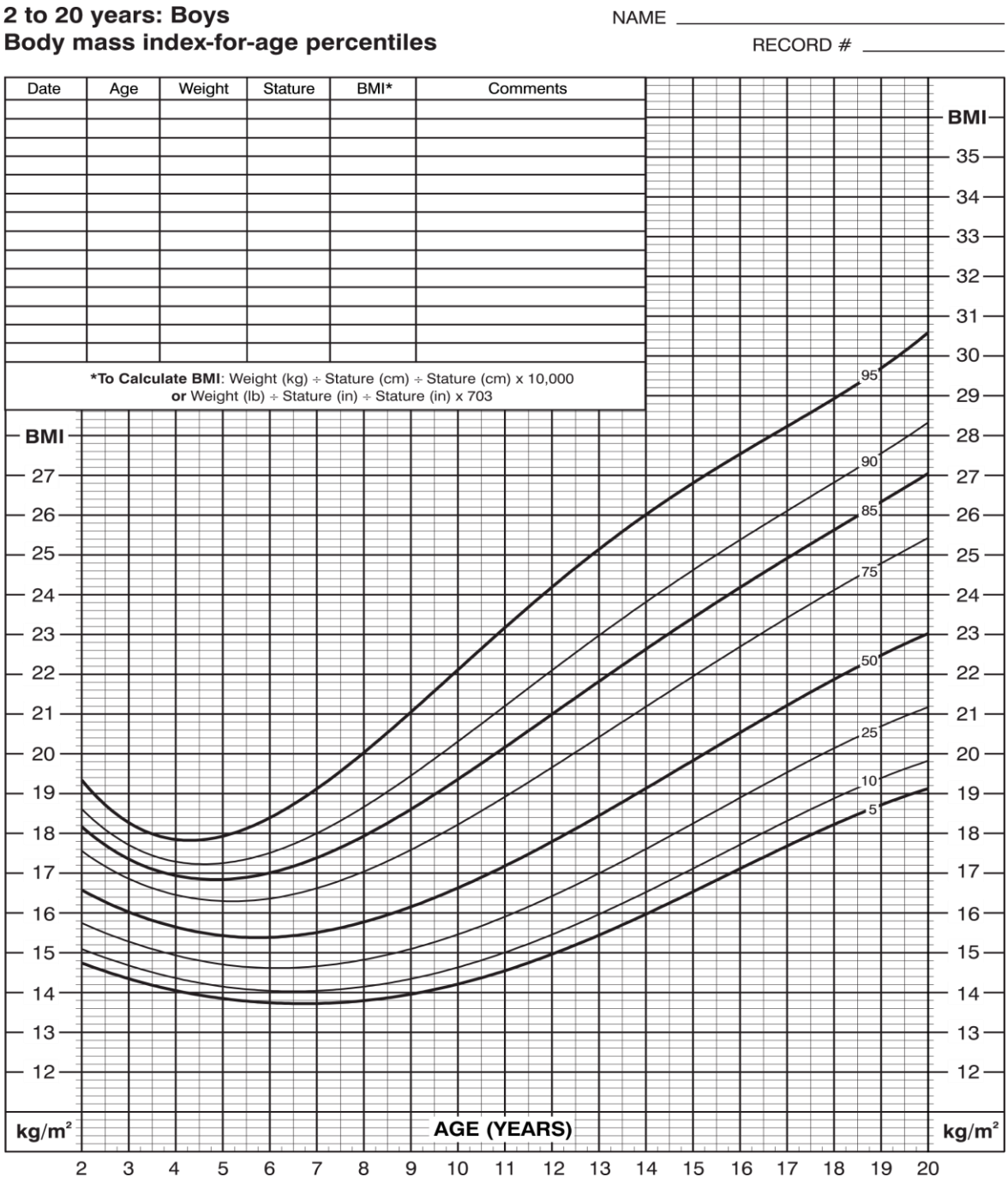


Figure1

BMI table-based graph was developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).

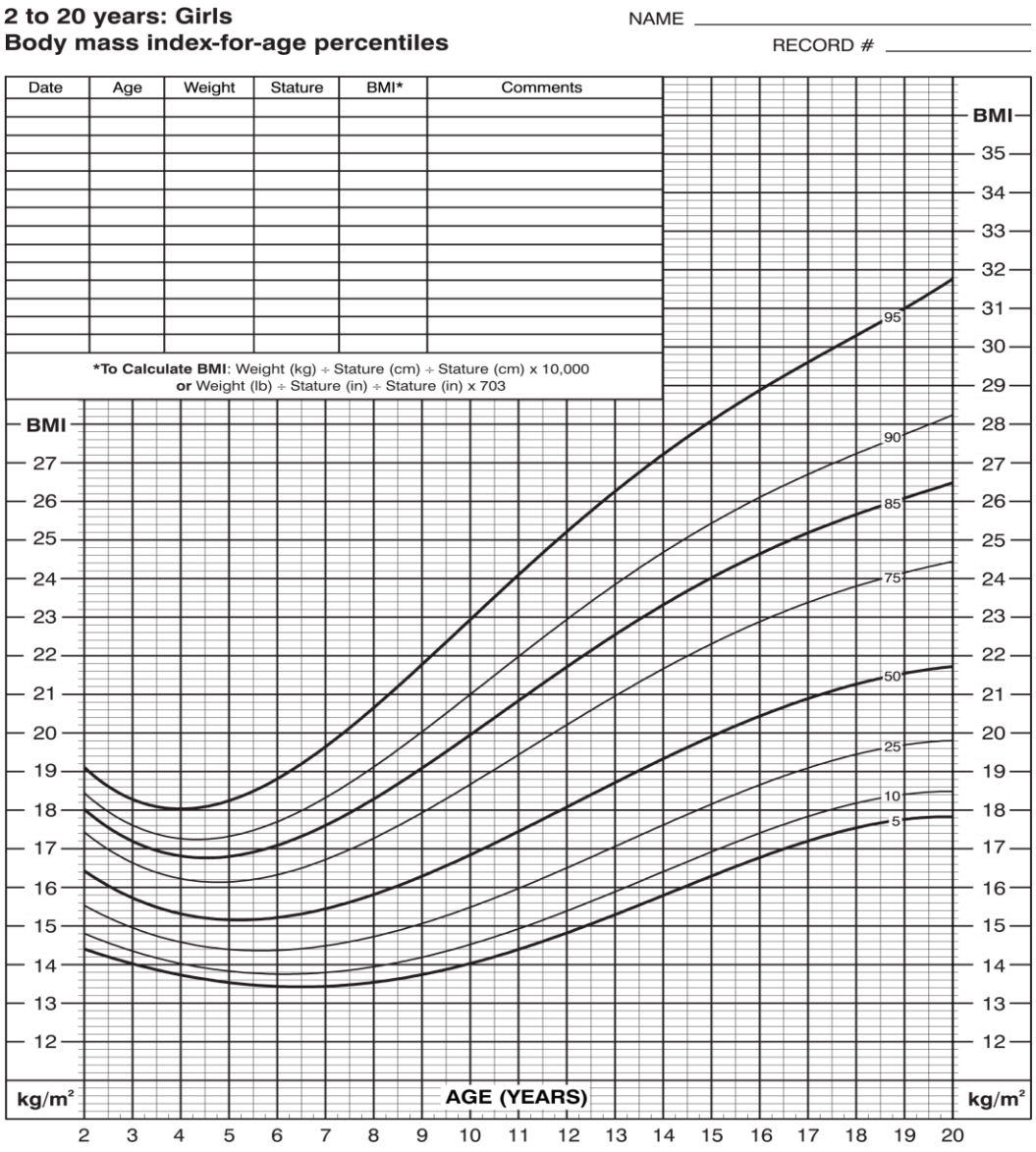


Figure2

BMI table-based graph was developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).

Table2.5

Boys' and girls' standard body weight according to age

BMI (kg m^{-2})	Boys			Girls		
	Adjusted BMI (kg m^{-2})			Adjusted BMI (kg m^{-2})		
	4–6 years	7–9 years	10–12 years	4–6 years	7–9 years	10–12 years
Black Africans						
13.0	12.57	12.54	12.75	12.51	12.51	12.77
14.0	13.36	13.40	13.63	13.32	13.38	13.66
15.0	14.14	14.27	14.51	14.13	14.26	14.55
16.0	14.93	15.13	15.39	14.94	15.14	15.44
17.0	15.72	15.99	16.26	15.75	16.01	16.33
18.0	16.50	16.85	17.14	16.56	16.89	17.22
19.0	17.29	17.72	18.02	17.37	17.77	18.11
20.0	18.08	18.58	18.90	18.17	18.64	19.00
21.0	18.87	19.44	19.78	18.98	19.52	19.88
22.0	19.65	20.30	20.66	19.79	20.40	20.77
23.0	20.44	21.17	21.54	20.60	21.28	21.66
24.0	21.23	22.03	22.42	21.41	22.15	22.55
25.0	22.02	22.89	23.29	22.22	23.03	23.44
South Asians						
13.0	14.12	14.12	14.12	14.07	14.07	14.07
14.0	15.12	15.12	15.12	15.07	15.07	15.07
15.0	16.12	16.12	16.12	16.07	16.07	16.07
16.0	17.12	17.12	17.12	17.07	17.07	17.07
17.0	18.12	18.12	18.12	18.07	18.07	18.07
18.0	19.12	19.12	19.12	19.07	19.07	19.07
19.0	20.12	20.12	20.12	20.07	20.07	20.07
20.0	21.12	21.12	21.12	21.07	21.07	21.07
21.0	22.12	22.12	22.12	22.07	22.07	22.07
22.0	23.12	23.12	23.12	23.07	23.07	23.07
23.0	24.12	24.12	24.12	24.07	24.07	24.07
24.0	25.12	25.12	25.12	25.07	25.07	25.07
25.0	26.12	26.12	26.12	26.07	26.07	26.07

Source: BMI table-based graph was developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).

Table2.6

Boys' and girls' over weight and obesity according to age by using BMI

Age (years)	Boys		Girls	
	Overweight	Obesity	Overweight	Obesity
7-	17.4	19.2	17.2	18.9
8-	18.1	20.3	18.1	19.9
9-	18.9	21.4	19.0	21.0
10-	19.6	22.5	20.0	22.1
11-	20.3	23.6	21.1	23.3
12-	21.0	24.7	21.9	24.5
13-	21.9	25.7	22.6	25.6
14-	22.6	26.4	23.0	26.3
15-	23.1	26.9	23.4	26.9
16-	23.5	27.4	23.7	27.4
17-	23.8	27.8	23.8	27.7
18	24.0	28.0	24.0	28.0

Source: BMI table-based graph was developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).

Table 2.7

Distribution of adolescents by gender, birth order, weight and number of sibling

Variables	***Group***	***Number***	***Percentage***
Gender	Boy	152	44.7%
	Girl	188	55.3%
Birth Order	First	141	41.5%
	Middle	84	21.7%
	Last	88	25.9%
	Only child	27	7.9%
Weight	Normal weight	129	37.9%
	Overweight	211	62.1%
Sibling	Brother	97	28.5%
	Sister	98	28.8%
	Both brother& sister	118	34.7%
	No sibling	27	7.9%

Table2.8

Distribution of mothers according to profession, monthly family income, educational qualification and use of psychological help

Variables	*Group*	*Number*	*Percentage*
Profession	Housewife	281	82.6%
	Service holder	59	17.4%
Monthly family income	Below 40000tk	228	67.1%
	40000tk & above	112	32.9%
Educational qualification	Below graduate	243	71.5%
	Graduate & above	97	28.5%
Use of psychological help	Yes group	22	6.5%
	No group	318	93.5%

2.2 Instruments:

Four questionnaires were used in the present study. First two questionnaires were used for mothers and another two for adolescents. Along with the questionnaire a personal information form was also used. The four questionnaires were

1. Life stress questionnaire
2. Melbourne Decision Making Questionnaire (MDMQ)
3. Over scheduled scale for adolescents
4. BECK Youth Inventories of Emotional and Social Impairment

Following are the descriptions of the questionnaires

2.2.1 Life Stress Questionnaire

The original version of the "How stressful is your life scale?" (Cohen, 1999), translated into Bangla by Fahim (2001) was used to measure life stress. The Life Stress Questionnaires consists of 10 items. It was a 5 Point Likert format ranging from very strongly disapproved to very strongly approve. The positive items were scored 4, 3, 2, 1, 0 and the negative items were calculated in the reverse order or 0, 1, 2, 3, 4. The total score range of the questionnaire was 0 to 40. Higher scores indicate high life stress and lower scores indicate low life stress. The correlation coefficient of the Bangla version of the Life Stress Questionnaire with the English version was .90, which was significant at 0.01 level. The scale also has face and content validity.

2.2.2 Melbourne Decision Making Questionnaire (MDMQ):

The original scale "The Melbourne Decision Making Questionnaire (MDMQ): was developed by Mann, Burnett, Radford and Ford (1997) was used to measure decision making style of the mothers of the adolescent. The scale was adapted by Rahman (2014). The MDMQ consists of 22 items and comprised 4 types decision making style- Vigilance (item 1 to 6), Buck passing (item 7 to 12), Procrastination (item 13 to 17) and Hyper vigilance (item 18 to 22). It was a 3 Point Likert type responserespondents sc ale where "True for me" (score 2), "Sometimes true" (score 1) and "Not true for me" (score 0). Total score can be ranged from 0 to 44. In vigilance category higher score indicates high rational decision-making style and lower score indicates less coping condition. Another three types of category like hyper vigilance, buck passing and procrastination style higher score indicates high level of anxiety, lack of confidence and avoiding making a difficult decision. The Cronbach Alpha for Bangla version for vigilance was .69, for buck passing was .62, for procrastination was .68 and for hyper vigilance was .68. The scale also has face and content validity.

2.2.3 Overschedule Scale for Adolescents

This scale was developed by the present author. A step by step approach to develop a psychological test or scale includes- (1) Defining the construct (2) Generating the items (3) Rating the items (4) Selection of items (5) Pilot Study (6) Item Analysis (7) Determining reliability and validity and (8) Scoring of the scale.

These steps shift from the more conceptual to the more statistical. That is to say, the task of identifying and operationalizing construct is conceptual while that of collecting data, assessing items and determining reliability and validity are primarily statistical. For the purpose of item development, the steps are described below.

The First Step: *Defining the construct*: In scaling methods, the first step is to define what the researcher is trying to measure. The present researcher wants to measure over schedule of an individual adolescent. First, the operational definition of over scheduling was given as an instruction to the people who were going to create or generate the initial set of items for the scale.

The Second Step: *Generating the items:* Based on the detailed literature review and understanding of over schedule related issues, it is decided to develop the scale in line with the over schedule related components framework suggested by Dr. Adelle Cadieux (2014) and Pam Meyers (2014). Dr. Adelle Cadieux and Pam Meyers's over schedule framework views development as influenced by seven sub divisions. The seven sub divisions are the mood, academic grade, favorite activities, sleep, food habit, withdrawal behavior and physical illness. From the discussion with the subject experts and focused group discussion it was felt that measuring over schedule pertaining to these dimensions will be significant in Bangladesh context. A total of 7 items for mood, 7 items for academic grade, 8 items for favorite activities, 5 items for sleep, 9 items for food habit, 8 items for withdrawal behavior and 7 items for physical illness were generated. In the next steps these 51 items were edited and refined following the necessary techniques.

Table 2.9

Number of sub scales and items of the over schedule scale

Serial number	*Sub scale*	*Number of items*
1	Mood	7
2	Academic grade	7
3	Favorite activities	8
4	Sleep	5
5	Food habit	9
6	Withdrawal behavior	8
7	Physical illness	7

Total item= 51

The Third Step: ***Rating the items:*** In the next step judges were given the items for rating. The items were subjected to the opinion of experts whom are the facilities of Psychology department of University of Dhaka and Jagannath University, Bangladesh. In rating the items experts were given three options. The options were essential, useful but not essential and not necessary (Cohen, & Swerdlik, 2010). They were told that not to judge what they believe; they would judge how favorable each item with respect to the construct of interest.

The Forth Step: ***Selection of items*****:** In making judgments about which items to retain for the final scale, summated the scores for all items and calculated the inter correlations between all pairs of items. After calculating, items were rejected which were found low correlation with the sum of the scores.

The Fifth Step: ***Pilot Study*****:** The pilot study was carried out to determine the reliability and validity of the over scheduling checklist for adolescents in Bangladeshi context. The researcher used purposive sampling technique to collect data from 119 adolescents in which 58 were girl and 61 were boy. Among them 58 were overweight adolescents (30 boys and 28 girls) and 61 were normal weight adolescents (31 boys and 30 girls). The age range of the participants was 11 to 16 years. The testing was carried out in classroom with kind permission and cooperation of the authority of the respective School. The

students were informed of the purpose of the study and they were told that their names would not appear in the tests. Researcher administered the questionnaire following a detailed testing protocol.

At the beginning of administration of questionnaire, the researcher read the instructions aloud. Students were directed to read the written instructions very carefully and answer every question in the way that was most appropriate of them. They were told that there was no right or wrong answer but it was important to answer all the questions what they seem appropriate. They were assured that no one would know their response since their names would not be recorded in the questionnaire. They were also told that if they face any difficulty in understanding an item, they can ask the researcher for clarification.

The Sixth Step: *Item Analysis:* Item analysis is generally the detailed analysis of the individual items of a test or scale with the purpose of assessing their reliability and validity (Reber et al, 1995). How individual item is correlated with the total score was determined by corrected item total correlation. Cronbach's Alpha was calculated if each item would be deleted from first try out of the Over Scheduled Scale.

Table 2.10

The item total correlation (r) and Cronbach's Alpha if each item deleted of all items of this scale

Items of OSS	*Corrected Item total correlation*	*Cronbach's Alpha if Item Deleted*
Item 1	.679	.859
Item 2	.751	.850
Item 3	.633	.860
Item 4	.650	.862
Item 5	.504	.883
Item 6	.673	.859
Item 7	.740	.850
Item 8	.440	.642
Item 9	.399	.681
Item 10	.451	.640

continued

Item 11	.329	.695
Item 12	.411	.650
Item 13	.506	.624
Item 14	.443	.642
Item 15	.681	.830
Item 16	.613	.837
Item 17	.676	.831
Item 18	.667	.830
Item 19	.512	.849
Item 20	.568	.843
Item 21	.659	.831
Item 22	-.270	.250
Item 23	.431	.822
Item 24	.642	.753
Item 25	.582	.773
Item 26	.721	.727
Item 27	.611	.763
Item 28	.654	.798
Item 29	.550	.810
Item 30	.498	.816
Item 31	.552	.810
Item 32	.603	.804
Item 33	.555	.809
Item 34	.579	.807
Item 35	-.150	.217
Item 36	.102	.210
Item 37	.653	.840
Item 38	.670	.837
Item 39	.475	.861
Item 40	.521	.854

continued

Item 41	.663	.838
Item 42	.659	.839
Item 43	.706	.835
Item 44	.543	.852
Item 45	.655	.802
Item 46	.672	.764
Item 47	.514	.794
Item 48	.677	.767
Item 49	.404	.837
Item 50	.644	.773
Item 51	.465	.802

N=119, * p<0.01

Table 2.10 showed that all the items are significant at $\dot{\alpha}$ =0.01. Pearson product moment correlation coefficients with the total scores obtained in the first try out and the range of the correlation were from .210 to .883.

51 items of the over schedule scale were thoroughly analyzed and corrected item and total correlations were calculated. The corrected item total correlation values of 48 items were found significant. Item no 22, 35, 36 were not significant. That's why those 3 items were rejected for final scale.

Table 2.11

Name and number of the items of sub scales of final over scheduled scale

Serial number	***Sub scale***	***Number of items***
1	Mood	7
2	Academic grade	7
3	Favorite activities	7
4	Sleep	5
5	Food habit	7
6	Withdrawal behavior	8
7	Physical illness	7

Total item= 48

The Seventh Step: ***Determining reliability and validity:***

Reliability

Cronbach alpha was computed to determine the internal consistency of reliability. Cronbach alpha was also calculated for the seven sub scales separately. The cronbach alpha of total scale was .869. This value is highly significant with an alpha level of 0.01. Cronbach alpha was also measured for the seven sub scales separately. Cronbach alpha of seven sub scales is presented in table 2.12.

Table 2.12

Internal consistency (Cronbach Alpha) of the seven sub scales

Dimension of sub scales	*Cronbach Alpha*
Mood (7 items)	.878
Academic grade (7 items)	.688
Favorite activities (7 items)	.856
Sleep (5 items)	.806
Food habit (7 items)	.829
Withdrawal behavior (8 items)	.861
Physical illness (7 items)	.812

N=119, * p<0.01

Content validity, convergent validity and concurrent validity of the scale were determined in the present study.

Content validity: Content validity is defined as the degree to which items in an instrument reflect the content universe to which the instrument will be generalized (Straub, Boudreau et al, 2004). In general content validity involves evaluation of a new survey instrument in order to ensure that it includes all the items that are essential and eliminates undesirable items to a particular construct domain (Lewis et al, 1995; Boudreau et al, 2004). As reported by the judges the over scheduling checklist has good content validity. This checklist was examined by getting comments about readability, logically, clarity, comprehensiveness, easily answerable and style and formatting of the scale items. To measure content validity, Lawshe's method (1975) was used here.

CVR; Lawshe's Method

CVR= {ηe-(N÷2)}/(N÷2)

Here,

CVR= Content validity ratio

N= Total number of expert/ Panel list

ηe = Number of expert/ panel list including essential

In the present study, N=8

Table: 2.13

CVR value of the over scheduled scale represented by sub scales

Mood (sub scale)	CVR value
Item 1	.75
Item 2	.75
Item 3	1
Item 4	.5
Item 5	.5
Item 6	1
Item 7	1

Academic Grade (sub scale)	*CVR value*
Item 1	1
Item 2	.5
Item 3	.75
Item 4	.5
Item 5	1
Item 6	.75
Item 7	1

Favorite Activities (sub scale)	*CVR value*
Item 1	1

continued

Item 2	.75
Item 3	.75
Item 4	1
Item 5	1
Item 6	.75
Item 7	1
Item 8	-.25

Sleep (sub scale)	*CVR value*
Item 1	1
Item 2	1
Item 3	1
Item 4	.5
Item 5	.75

Food Habit (sub scale)	*CVR value*
Item 1	1
Item 2	.75
Item 3	.75
Item 4	.75
Item 5	.75
Item 6	1
Item 7	.75
Item 8	-.25
Item 9	-.50

continued

Withdrawal Behavior (sub scale)	*CVR value*
Item 1	1
Item 2	1
Item 3	1
Item 4	.75
Item 5	.75
Item 6	.5
Item 7	.75
Item 8	.75

Physical Illness (sub scale)	*CVR value*
Item 1	.75
Item 2	1
Item 3	1
Item 4	1
Item 5	.75
Item 6	.75
Item 7	.75

Lawshe (1975) suggested that based on "established psychophysical principles," a level of 50% agreement gives some assurance of content validity. In the above table, total 48 items were found significant on the basis of CVR value. 3 items were eliminated because of negative scores of CVR value. Those were, Favorite Activities (sub scale) item no 8 and CVR value was-.25, Food Habit (sub scale) item no 8 and CVR value was -.25 and the last deleted item no was 9 and CVR value was-.50. Negative CVR value means that the item was not appropriately identified the content. So, 3 items were deleted from the final scale.

Convergent Validity: To assess the convergent validity of the instrument, researcher determined inter correlation among sub scales of over scheduled scale. This provided evidences for the internal structure of the instrument. The scores of the over scheduled scale were significantly correlated with each other. A high correlation was also observed among scores of the sub scales. The correlation is presented in table 2.14.

Table: 2.14

Inter correlation among the sub scales of the over scheduled scale

Sub scales	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1. Mood							
2. Academic grade	.733						
3. Favorite activities	.794	.709					
4. Sleep	.858	.773	.802				
5. Food habit	.778	.689	.776	.773			
6. Withdrawal behavior	.787	.700	.797	.816	.816		
7. Physical illness	.782	.610	.805	.765	.770	.783	

*p <0.01

The scores of the over scheduled sub scales were significantly correlated with each other. A high correlation was observed among the sub scales. The correlation range of the sub scales were from .610 to .858. So, the convergent validity of the over scheduled scale is good.

Concurrent Validity: To assess the concurrent validity of the over scheduled scale, researcher determined correlation among over scheduled scale and BECK Youth Inventories of Emotional and Social Impairment. The scores of the over scheduled scale was significantly correlated with that scale. A high correlation was also observed among scores of the sub scales. The correlation is presented in the following table.

Table 2.15

Correlation coefficient between over scheduled scale and BECK Youth Inventories of Emotional and Social Impairment

Scale	*BECK Youth Inventories of Emotional and Social Impairment*
Over scheduled scale	.730

*p <0.01

The correlation coefficient between over scheduled scale and BECK Youth Inventories of Emotional and Social Impairment was .730. This is a highly positive correlation.

Table 2.16

Correlation coefficient among 7 sub scales over scheduled scale and 5 sub scales of BECK Youth Inventories of Emotional and Social Impairment

Sub scales	*Self Concept*	*Anxiety*	*Depression*	*Anger*	*Disruptive behavior*
Mood	.721	.790	.788	.799	.701
Academic grade	.723	.779	.766	.780	.783
Favorite activities	.787	.765	.739	.749	.781
Sleep	.789	.788	.790	.791	.761
Food habit	.754	.710	.789	.751	.743
Withdrawal behavior	.710	.726	.788	.762	.782
Physical illness	.701	.711	.719	.703	.701

*p <0.01

The correlation coefficient of the over scheduled sub scales was significantly correlated with BECK Youth Inventories of Emotional and Social Impairment sub scales. Highly

positive correlation was observed among the sub scales. The correlation coefficient range of the sub scales were .701 to .799. So, the scale has significant concurrent validity.

The Eight Step: ***Scoring of the scale:*** Over scheduled Scale consists of 48 items. It is a 4-point Likert type scale. The four responses are always, often sometimes, never, where; 0=always, 1= often, 2= sometimes, 3= never, for positive items. On the other hand, 0= never, 1= sometimes, 2= often, 3= always, for negative items. The minimum and maximum possible score of this scale is 0 to 144. In case of sub scale the ranges of the scores differ. The score for mood ranged from 0 to21, for academic grade range was form 0 to 21, for favorite activities range was form 0 to 21, for sleep range was form 0 to 15, for food habit ranged 0 to 21, for withdrawal behavior ranged from 0 to 24, and physical illness ranged was from 0 to 21. Higher scores indicate high level of over schedule and lower score indicate less level of over schedule.

2.2.4 BECK Youth Inventories of Emotional and Social Impairment:

BECK Youth Inventories of Emotional and Social Impairment were developed by Beck, Beck and Jolly (2001). Bangla version of BECK Youth Inventories of Emotional and Social Impairment was adapted by Uddin, Haque and Shimul (2011). It was used to measure adolescent social and emotional impairment. Any researcher can use separately or in any combination to assess an adolescent's experience of self-concept, anxiety, depression, anger and disruptive behavior by the scale. Each dimension contains 20 statements about thoughts, feelings or behaviors associated with emotional and social impairment in youth. The test and norms were approved for adolescents (11-14 years). Cronbach's alpha coefficients computed for each of the five inventories within each of the four norm groups indicated high internal consistency ranging from .89 to .93. Corrected test –retest reliabilities for youth aged 11-14 ranged from .84 to.93. Every item consisted of a 4-point scale ranging from 0 (never), 1 (sometimes), 2(often), 3(always). The total raw score of the inventory was obtained by adding the scores. The range of the possible raw score on every sub scale was 0 to 60. The range of the total scores was 0 to 300. Higher score indicates high level of socially and emotionally impaired and lower score indicates not socially and emotionally impaired.

2.2.5 Personal information form: Through this form the weight of adolescents, gender, numbers of siblings, birth order information were collected. The information about mothers' educational levels, profession, use of psychological help in past life, monthly family income was also collected.

2.3 Procedure:

For collecting data present researcher was considering Dhaka city with two divisions. That was Dhaka north city corporation and Dhaka south city corporation. The school list was collected from Wikipedia. From both city corporation, five schools were selected randomly by using lottery method. Before data collection present researcher collected an approval of research proposal ethics by Ethical Review Board (ERB) from Faculty of Biological Science from University of Dhaka. This ethical clearance was attached in appendices section. After permission of school authority and with the help of the class teacher, 340 adolescents were selected as respondents of them 211 were over weighted and 129 were normal weighted participants were purposively selected. Adolescents weight was measuring by using electronic weight measure machine. Over weight was measuring to use over weight and obesity list from WHO and BMI checklist. Those lists were attached in previous participants section. Students were selected from class six to class ten.

At first two informed consent forms (ICF) were provided to the adolescent respondents. One for adolescent boy or girl and one for their mother. Next day they returned the form. When both of them agreed to participate in the study, they were finally selected for the research. Then a pre schedule date over scheduled scale and BECK Youth Inventories of Emotional and Social Impairment were administered in the classroom on them. A verbal instruction was given about the questionnaire. After completing the questionnaires, they were thanked for their kind cooperation. They were also given another two questionnaires- Life Stress Questionnaires and Melbourne Decision Making Questionnaire (MDMQ) for their mother to fill up. The mothers were also requested to return the filled-up questionnaire in a sealed envelope to the class teachers. The researcher of the present study collected the envelops from the class teacher. They were

assured that the information supplied by them would be kept strictly confidential and be used for research purpose only. After collecting all data, the final analysis was starting. In first all data are scoring manually. SPSS version 25 software was used to process the research data like data inputting, data screening. For mediation analysis The PROCESS macro for SPSS software was used.

Results

For analyzing the results SPSS version 25 software was used in the present study. To analyze the general objective the PROCESS macro for SPSS software was used. Parallel mediation analysis was used to measure the general objectives. There were seven specific objectives in the present study. For analyzing the specific objectives Pearson product moment correlation, descriptive statistical analysis, t-test and F test were used in the present research. Few demographic variables are here to consider. Those variables were considered only to measure the difference between groups, not to use as a predictor. That's why t-test and F-test were used not regression. The general or main objective was to measure mediating effects. So only for this case parallel mediation analysis was used. A short form according to objectives have been presented in the below table.

Table 3.1

Objectives and findings of this present research

No	Objectives	Finding Results
	General Objective	
	To find out whether overweight and over schedule have any mediating relationship with maternal stress and decision making with emotional and social impairment of adolescent.	Maternal stress has a significant positive direct effect on adolescents overweight and over scheduling. Which also have a direct effect of adolescents' overweight and over schedule on their emotional and social impairment. Maternal stress has a significant positive indirect effect on adolescents emotional and social impairment. Maternal decision making has a significant positive direct effect on adolescents overweight and over schedule. The direct effect of adolescents' overweight and over schedule on them

		emotional and social impairment was statistically found significant. Maternal decision making has a significant positive indirect effect on adolescents emotional and social impairment.
	Specific Objectives	
1	To investigate whether adolescents over schedule, maternal stress and decision making have any relationship with adolescents' emotional and social impairment.	Adolescents over schedule is positively correlated with their emotional and social impairment, maternal stress and decision making. Emotional and social impairment of adolescents is positively correlated with maternal stress and decision making. Maternal stress is also positively correlated with their decision making.
2	To explore the differences in over schedule and emotional and social impairment of adolescents according to gender and body weight.	Over schedule and emotional and social impairment of adolescents do not vary significantly according to gender. Overweight adolescents are more over scheduled and they are emotionally and socially more impaired than normal weight adolescents.
3	To compare in over schedule and emotional and social impairment of the adolescents according to their birth order.	Over schedule and emotional and social impairment varied significantly according to birth order.
4	To find out the difference between sibling and no sibling adolescents in their over schedule and emotional and social impairment.	The difference in over schedule and emotional and social impairment varied significantly according to number of siblings.

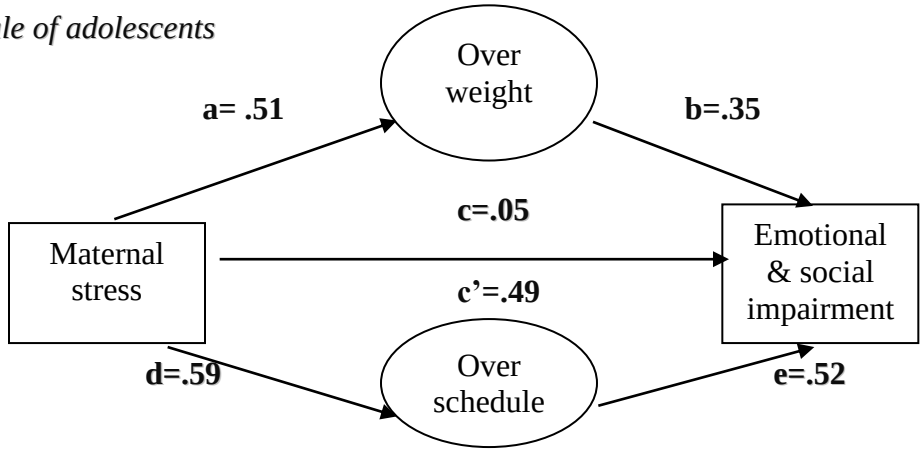
5	To find out the differences in over schedule and emotional and social impairment of adolescents according to their mother's job status, educational level, monthly family income and uses of psychological help.	No significant difference was found between house wife mothers' adolescents and service holder mothers' adolescents in over schedule but significant difference was observed between house wife mothers' adolescents and service holder mothers' adolescents in emotional and social impairment. Below graduate mothers' adolescents and above graduate mothers' adolescents vary significantly in over schedule and emotional and social impairment. There was significant difference of adolescents according to monthly family income in over schedule and emotional and social impairment. A significant difference was observed in over schedule and emotional and social impairment of adolescents between the mothers those taken psychological help in past and never taken any psychological help mothers.
6	To find out the differences in maternal stress and decision making according to their job status, educational level, monthly family income and their uses of psychological help.	Stress and decision making did not vary significantly according to the job status, educational qualification and monthly family income of the mothers. There was significant difference in stress between mothers taken psychological help in past and never taken any psychological help. No significant difference was found in decision making between these two group of mothers.
7	To explore the difference in stress and decision making between	There was significant difference in stress and decision making between normal weight

normal weight and overweight adolescents' mothers.	adolescents' mothers and overweight adolescents' mothers.

The general objectives of the study were to find out whether overweight and over schedule have any mediating relationship of maternal stress and decision making with emotional and social impairment of adolescent. This objective divided into two parts. First one was to find out whether overweight and over schedule have any mediating relationship of maternal stress with emotional and social impairment of adolescent. For analyzing the objective parallel mediation analysis was used.

Figure 3:

parallel mediation analysis showing the effect of maternal stress on adolescents emotional and social impairment as mediated simultaneously by over-weight and over-schedule of adolescents



c= direct effect, c'= indirect effect

c'=ab+de=.18+.31=.49

In the present study, SPSS PROCESS (model4) was used to conduct a parallel mediation analysis to test the model. This type of analysis permits us to test for the direct effects of maternal stress on adolescents emotional and social impairment, overweight and over schedule. Furthermore, it also enables us to test for the effect of overweight and over schedule on adolescents emotional and social impairment. Lastly it helps us to test the indirect effects of maternal stress on adolescents emotional and social impairment via overweight and over schedule.

The results displayed in Figure 3 revealed that maternal stress has not significant influence on adolescent emotional and social impairment(c=.05). But maternal stress had a significant and positive direct effect on adolescents overweight (a=.51) and over schedule (d=.59). The direct effects of adolescents' overweight on their emotional and social impairment was statistically found significant(b=.35). Findings in Figure 3 indicated that adolescents over schedule has a significant and positive direct effect on their emotional and social impairment(e=.52). The findings shown that maternal stress had a significant and positive indirect effect on adolescents emotional and social impairment(c'=.49).

Table 3.2:

The direct effects of over-weight and over-schedule mediating maternal stress with emotional and social impairment of adolescents

Path	*Independent variable*	*Outcome*	*Std* β	*SE*	*t*	*p*
c	Maternal stress	Emotional & social impairment	.05	.27	1.09	.28
d	Maternal stress	Over schedule	.59	.16	13.52	.01
a	Maternal stress	Overweight	.51	.08	10.90	.01
b	Overweight	Emotional & social impairment	.35	.17	7.80	.01
e	Over schedule	Emotional & social impairment	.52	.09	11.01	.01

* $p<0.05$

Results in the Table 3.2, path c revealed that, maternal stress (independent variable) was not significantly related with adolescents emotional and social impairment(outcome) (β= .05, $p>0.05$). path d showed that, maternal stress (independent variable) was significantly related with adolescents over schedule(mediator) (β= .59, $p<0.05$). path a indicated that, maternal stress (independent variable) was significantly related with adolescents over weight(mediator) (β= .51, $p<0.05$) and path b revealed that, adolescents overweight (mediator) was significantly related with adolescents emotional and social impairment(outcome) (β= .35, $p<0.05$). Finally, path e focused that, adolescents over schedule (mediator) was significantly related with adolescents emotional and social impairment(outcome) (β= .52, $p<0.05$).

Table3.3:

The indirect effects of maternal stress on adolescents emotional and social impairment via overweight and over schedule of adolescents

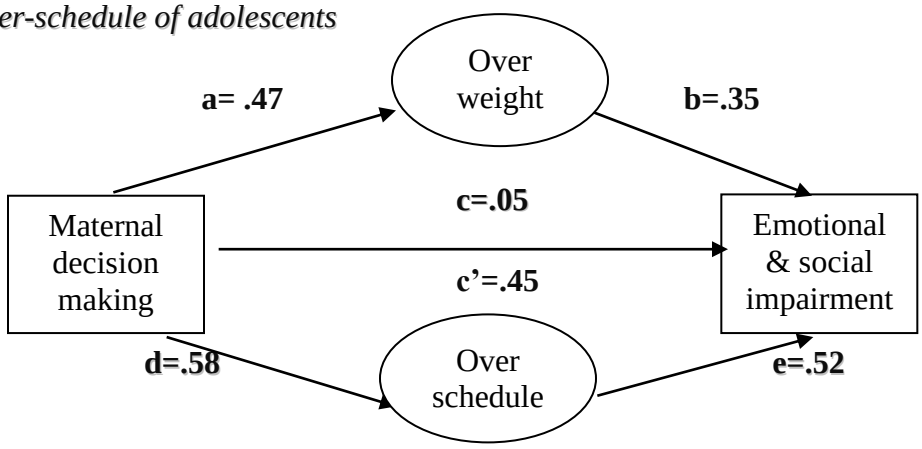
			95% CI	
Path	*Std.* β	*SE*	*LL*	*UL*
M.S ⟶ O.W ⟶ E.S.I	.18	.03	.12	.24
M.S ⟶ O.S ⟶ E.S.I	.31	.04	.23	.38

M.S=Maternal stress, O. W= Overweight, E.S. I= Emotional and social impairment, O. S= Over schedule

Findings in Table 3.3 revealed that, the indirect effect of maternal stress on adolescents emotional and social impairment via overweight was significant (β =.18). The Bootstrapped effect (with 95% confidence interval) from above table showed that the indirect effect of the maternal stress on adolescents emotional and social impairment via over schedule of adolescents was also statistically significant (β =.31).Second part of the general objective was to find out whether overweight and over schedule have any mediating relationship of maternal decision making with emotional and social impairment of adolescent. For analyzing the objective parallel mediation analysis also used.

Figure 4:

parallel mediation analysis showing the effect of maternal decision making on adolescents emotional and social impairment as mediated simultaneously by over-weight and over-schedule of adolescents



c= direct effect, c'= indirect effect

c'=ab+de=.15+.30=.45

This type of analysis permits us to test for the direct effects of maternal decision making on adolescents emotional and social impairment, overweight and over schedule. Furthermore, it also enables us to test for the effect of overweight and over schedule on adolescents emotional and social impairment. Lastly it enables us to test for the indirect effects of maternal decision making on adolescents emotional and social impairment via overweight and over schedule.

The results displayed in Figure 4 revealed that maternal decision making had not significant effect on adolescent emotional and social impairment (c=.05). Maternal decision making had a significant and positive direct effect on adolescents overweight (a=.47) and over schedule (d=.58). The direct effect of adolescents' overweight on their emotional and social impairment was statistically significant(b=.35). Adolescents over schedule seemed to have a significant influence on their emotional and social impairment. Findings in Figure 4 indicated that adolescents over schedule had a significant and positive direct effect on their emotional and social impairment(e=.52). On the other hand, the findings shown that maternal decision making had a significant and positive indirect effect on adolescents emotional and social impairment(c'=.45).

Table 3.4:

The direct effects of over-weight and over-schedule mediating maternal decision making with emotional and social impairment of adolescents

Path	*Independent variable*	*Outcome*	*Std* β	*SE*	*t*	*p*
c	Maternal decision making	Emotional & social impairment	.05	.24	1.27	.20
d	Maternal decision making	Over schedule	.58	.15	12.93	.01
a	Maternal decision making	Overweight	.47	.08	9.74	.01
b	Overweight	Emotional & social impairment	.35	.17	7.90	.01
e	Over schedule	Emotional & social impairment	.52	.09	10.90	.01

* $p<0.05$

As shown in the Table 3.4, path c revealed that, maternal decision making (independent variable) was not significantly related with adolescents emotional and social impairment(outcome) (β= .05, $p<0.05$). path d revealed that, maternal decision making (independent variable) was significantly related with adolescents over schedule(mediator) (β= .58, $p<0.05$). path a revealed that, maternal decision making (independent variable) was significantly related with adolescents over weight(mediator) (β= .47, $p<0.05$). path b revealed that, adolescents overweight (mediator) was significantly related with adolescents emotional and social impairment(outcome) (β= .35, $p<0.05$). Finally, path e revealed that, adolescents over schedule (mediator) was significantly related with adolescents emotional and social impairment(outcome) (β= .52, $p<0.05$).

Table 3.5:

The indirect effects of maternal decision making on adolescents emotional and social impairment via overweight and over schedule of adolescents

			95% CI	
Path	*Std.*β	*SE*	*LL*	*UL*
M.D.M⟶O.W ⟶ E.S.I	.15	.03	.10	.23
M.D.M⟶O.S ⟶ E.S.I	.30	.04	.22	.37

M.D.M=Maternal decision making, O. W= Overweight, E.S. I= Emotional and social impairment, O. S= Over schedule

Table 3.5 showed that, the indirect effect of maternal decision making on adolescents emotional and social impairment via overweight was significant (β =.15). The Bootstrapped effect (with 95% confidence interval) showed that the indirect effect of the maternal decision making on adolescents emotional and social impairment via over schedule of adolescents was also statistically significant (β =.30).

The first specific objective was to investigate whether adolescents over schedule, maternal stress and decision making have any relationship with adolescents' emotional and social impairment. Pearson Product moment Correlation was used to analyze the dada.

Table 3.6:

Correlation coefficient among over schedule of adolescents, emotional and social impairment of adolescents, maternal stress and maternal decision making

Variables	*Over schedule of adolescents*	*Emotional& social impairment of adolescents*	*Maternal stress*	*Maternal decision making*
Over schedule of adolescents	_			
Emotional &social Impairment of adolescents	.785	_		
Maternal stress	.593	.524	_	
Maternal decision Making	.575	.507	.624	_

* $p<0.01$

Results of correlation shown in table 3.6 indicated that adolescents over schedule is positively correlated with emotional and social impairment (r=.785), maternal stress (r=.593) and maternal decision making (r= .575). Results also shown that, emotional and social impairment of adolescents is positively correlated with maternal stress (r= .524) and maternal decision making (r= .507). Maternal stress is also positively correlated with maternal decision making (r= .624).

The second specific objective was to explore the differences in over schedule and emotional and social impairment of adolescents according to gender and body weight. This objective was presented into two parts. First part was gender related. Which was presented in Table 3.7. And second part was body weight related. This one was presented in Table 3.8.

Table 3.7:

Comparison in overschedule and emotional and social impairment according to gender of the adolescents

Variables	*Group*	*N*	*Mean ($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Over schedule	Boy	152	56.10	23.07	338	-.502	.62
	Girl	188	57.25	19.13			
Emotional & social	Boy	152	90.84	40.33	338	.399	.69
impairment	Girl	188	89.11	39.21			

* $p<0.05$

In Table 3.7, t- tests indicated that, in over schedule (boy $\bar{x}$ = 56.10 and girl $\bar{x}$ = 57.25), emotional and social impairment (boy $\bar{x}$ = 90.84 and girl $\bar{x}$ = 89.11) of adolescents did not varied significantly according to gender..

Table 3.8:

Comparison in over schedule and emotional and social impairment according to body weight

Variables	*Group*	*N*	*Mean ($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Over schedule	Normal weight	129	40.04	14.75	338	-14.66	.01
	Overweight	211	66.94	17.34			
Emotional & social impairment	Normal weight	129	59.71	30.13	338	-13.63	.01
	overweight	211	108.33	32.95			

* $p<0.05$

From table 3.8, t- tests indicated that there was significant difference in over scheduling between normal weight adolescents($\bar{x}$ =40.04) and overweight adolescents($\bar{x}$ =66.94) and also in emotional and social impairment respectively ($\bar{x}$ = 59.71) and overweight adolescents($\bar{x}$ = 108.33).The findings revealed that over weight adolescents were more over scheduled and their emotional and social impairment was more than normal weight adolescents.

The third specific objective was to compare in over schedule and emotional and social impairment of the adolescents according to their birth order. F-test was used to find out the result. Table 3.9, 3.10 and 3.11 presented the findings.

Table 3.9:

Comparison in over schedule according to birth order

Source of Variance	*SS*	*df*	*MS*	*F*	*Sig*
Between group	17485.70	3	5828.56	14.89	.001
Within group	131475.52	337	391.29		
Total	148961.22	340			

* $p<0.05$

Table 3.9 showed that, over schedule (F (3,337) =14.89) varied significantly according to birth order.

Table 3.10:

Comparison in emotional and social impairment according to birth order

Source of Variance	*SS*	*df*	*MS*	*F*	*Sig*
Between group	687777.29	3	22925.76	16.57	.001
Within group	464703.23	337	1383.04		
Total	533480.52	340			

* $p<0.05$

Table 3.10 showed that, emotional and social impairment (F (3,337) =16.57) varied significantly according to birth order.

Table 3.11:

Mean standard deviation of over schedule and emotional and social impairment according to birth order

Variables	*Group*	*N*	*Mean ($\bar{x}$)*	*SD*
Over schedule	1st child	141	52.82	21.32
	Middle child	84	49.79	18.45
	Last child	88	66.23	18.87
	Only child	27	67.85	18.10
Emotional & social	1st child	141	85.83	39.34
impairment	Middle child	84	71.76	34.84
	Last child	88	106.64	36.81
	Only child	27	112.78	33.55

Table 3.11 indicated that, a child without any siblings, is more over scheduled (only child $\bar{x}$ =67.85) than children have siblings(first born $\bar{x}$ =52.82), (middle born $\bar{x}$ =49.79). Last-born children are also over scheduled ($\bar{x}$ =66.23). Result also indicated that, a child without any siblings emotionally and socially is more impaired (only child $\bar{x}$ = 112.78) than children have siblings(first born $\bar{x}$ =85.83), (middle born $\bar{x}$ =71.76). And last-born children are also more emotionally and socially impaired ($\bar{x}$ =106.64).

The fourth specific objective of the result was to find out the difference between sibling and no sibling adolescents in their over schedule and emotional and social impairment. F-test was used to find out the difference. Table 3.12, 3.13 and 3.14 results have been presented.

Table 3.12:

Comparison of over schedule between sibling and no sibling adolescents

Source of Variance	*SS*	*df*	*MS*	*F*	*Sig*
Between group	5597.92	3	14.65.97	4.37	.005
Within group	143363.29	337	426.67		
Total	148961.22	340			

* $p<0.05$

Table 3.12 showed that, the difference in over schedule is varied significantly (F (3,337) =4.37) according to number of siblings.

Table 3.13:

Comparison between having sibling and no sibling adolescents in emotional and social impairment

Source of Variance	*SS*	*df*	*MS*	*F*	*Sig*
Between group	19887.19	3	6629.06	4.33	.005
Within group	513593.33	337	1528.55		
Total	533480.52	340			

* $p<0.05$

Findings showed that, the difference in emotional and social impairment varied significantly (F (3,337) =4.33) according to having or no sibling of the respondents.

Table 3.14:

Mean and SD in over schedule and emotional and social impairment according to with sibling and no sibling adolescents

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*
Over schedule	Having brother	97	52.41	20.01
	Having sister	98	56.41	20.88
	Having both brother &sister	118	57.92	21.67
	No sibling	27	68.29	17.18
Emotional & social	Having brother	97	83.92	39.36
impairment	Having sister	98	89.10	37.83
	Having both brother &sister	118	89.79	41.31
	No sibling	27	114.51	31.82

Table 3.14 indicated that, which children have no siblings, they are over scheduled ($\bar{x}$ =68.29) than other children and emotionally and socially are also more impaired ($\bar{x}$ = 114.51) than others. On the other hand, having brother respondents have lowest over schedule($\bar{x}$ =52.41)d and their emotional and social impairment are also lowest ($\bar{x}$ =83.92)among the different groups of respondents.

The fifth specific objective of the study was to find out the differences in over schedule and emotional and social impairment of adolescents according to their mother's job status, educational level, monthly family income and uses of psychological help. This specific objective has four separate parts. Those were adolescent's mother's job status related, educational level related, monthly family income basis and uses of psychological help in their past life related. There were always in two group for comparison. That's why t-test was used for analysis. The results were shown in Table 3.15 (maternal job status related), Table 3.16 (maternal educational qualification related), Table 3.17 (monthly family income related) and the last one 3.18 (mothers were taken any psychological help in their previous life).

Table 3.15:

Comparison between in over schedule and emotional and social impairment of the adolescents according to the job status of their mothers

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Over schedule	House wife mothers' adolescents	281	56.62	20.96	338	-.21	.83
	Service holder mothers' adolescents	59	57.27	21.11			
Emotional & social Impairment	House wife mothers' adolescents	281	88.29	39.52	338	-1.62	.01
	Service holder mothers' adolescents	59	97.47	39.79			

* $p<0.05$

Findings of the table 3.15, t- tests indicated that, there is no significant difference between house wife mothers' adolescents$(\bar{x} = 56.62)$ and service holder mothers' adolescents$(\bar{x} = 57.27)$ in over schedule. But the result indicated that, there is significant difference between house wife mothers' adolescents$(\bar{x} = 88.29)$ and service holder mothers' adolescents $(\bar{x} = 97.47)$ in emotional and social impairment .

Table 3.16:

Comparison between over schedule and emotional and social impairment of the adolescents according to the educational qualifications of their mothers

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Over schedule	Below graduate mothers' adolescents	243	58.31	19.97	338	2.20	.02
	Graduate & above mothers' adolescents	97	52.79	22.89			
Emotional & social Impairment	Below graduate mothers' adolescents	243	90.69	40.21	338	.595	.03
	Graduate & above mothers' Adolescents	97	87.85	38.39			

* $p<0.05$

From table 3.16, t- tests indicated that, below graduate mothers' adolescents$(\bar{x} = 58.31)$ and above graduate mothers' adolescents$(\bar{x} = 52.79)$ vary significantly in over schedule. t- tests also indicated that, there is significant difference between below graduate mothers' adolescents$(\bar{x} = 90.69)$ and graduate and above mothers' adolescents $(\bar{x} = 87.85)$ in emotional and social impairment .

Table 3.17:

Comparison between over schedule and emotional and social impairment of the adolescents according to the monthly family income of their family

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Over schedule	Monthly income below 40000tk	228	55.44	19.95	338	-1.63	.04
	Monthly income 40000tk & above	112	59.38	22.73			
Emotional & social Impairment	Monthly income below 40000tk	228	86.82	39.31	338	-2.04	.03
	Monthly income 40000tk & above	112	96.12	39.83			

* $p<0.05$

The findings of the table 3.17 indicated that, there is significant difference in over schedule between below 40000tk ($\bar{x} = 55.44$) and above 40000tk ($\bar{x} = 59.38$) in income group. t- tests also indicated that, there is a significant difference in emotional and social impairment between below 40000tk ($\bar{x} = 86.82$) and above 40000tk ($\bar{x} = 96.12$) income group.

Table 3.18:

Comparison of over schedule and emotional and social impairment between taken psychological help and never taken psychological help mother's adolescents

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Over schedule	Mothers taken Psychological help	22	65.95	13.67	338	2.14	.01
	Mothers never taken Psychological help	318	56.10	21.24			
Emotional & social Impairment	Mothers taken psychological help	22	97.18	33.23	338	.892	.03
	Mothers never taken Psychological help	318	89.38	40.07			

* $p<0.05$

The findings of the above table indicated that, there was a significant difference in over schedule and social and emotional impairment between taken psychological help and never taken psychological help mothers' adolescents. The adolescents of never taken psychological help have less emotional and social impairment ($\bar{x}$ = 89.38) and they are less over scheduled ($\bar{x}$ = 56.10) than their counter parts ($\bar{x}$ = 97.18) and($\bar{x}$ = 65.95) respectively. t tests indicate that, there is a significant difference in over schedule and emotional and social impairment.

The sixth specific objective was to find out the differences in maternal stress and decision making according to their job status, educational level, monthly family income and their uses of psychological help. This specific objective has four separate parts. Those were adolescent's mother's job status related, educational level related, monthly family income

basis and uses of psychological help in their past life related. There were always in two group for comparison. That's why t-test was used for analysis. The results were shown in below Table 3.19 (maternal job status related), Table 3.20 (maternal educational qualification related), Table 3.21 (monthly family income related) and the last one 3.22 (mothers were taken any psychological help in their previous life).

Table 3.19:

Comparison in stress and decision making of the adolescent's mothers according to their job status

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Stress	House wife mothers	281	18.007	6.02	338	-.052	.95
	Service holder mothers	59	18.05	4.98			
Decision	House wife mothers	281	23.23	6.64	338	.247	.80
Making	Service holder mothers	59	23	5.91			

* $p<0.05$

Results of the table 3.19 indicated that, stress and decision making do not vary significantly according to the job status of the mother of the adolescents.

Table 3.20:

Comparison between stress and decision making of the adolescent's mothers according to the educational qualifications

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Stress	Below graduate mothers	243	18.22	5.75	338	1.05	.29
	Graduate & above mothers	97	17.48	6.08			
Decision	Below graduate mothers	243	23.36	6.55	338	.765	.44
Making	Graduate & above mothers	97	22.76	6.44			

* $p<0.05$

The findings of table 3.20, t- tests indicated that, there are no significant difference in stress and decision making between below graduate mothers and above graduate mothers.

Table 3.21:

Comparison in stress and decision making in adolescent's mothers according to the monthly family income of their family

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Stress	Monthly below 40000tk Family income mothers	228	17.92	5.62	338	-.38	.70
	Monthly 40000tk & above Family income mothers	212	18.19	6.30			
Decision Making	Monthly below 40000tk Family income mothers	228	23.24	6.25	338	.18	.85
	Monthly 40000tk & above Family income mothers	212	23.09	7.05			

* $p<0.05$

Findings of the table 3.21 revealed that, the stress and decision making of the mothers do not vary significantly according to the monthly family income.

Table 3.22:

Comparison of stress and decision making between taken psychological help and never taken psychological help mothers

Variables	*Group*	*N*	*Mean*($\bar{x}$)	*SD*	*df*	*t*	*sig*
Stress	Mothers taken Psychological help	22	20.96	5.02	338	.174	.01
	Mothers never taken Psychological help	318	17.81	5.85			
Decision Making	Mothers taken psychological help	22	24.50	5.68	338	.974	.33
	Mothers never taken psychological help	318	23.10	6.57			

* $p<0.05$

The result of the table 3.22 indicated that, there is significant difference in stress between mothers taken psychological help (psychiatric drug or counseling/ psychotherapy) in past($\bar{x}$ = 20.96) and never taken any psychological help mothers ($\bar{x}$ = 17.81). The mothers those taken psychological help in past are more stressed. On the other hand , t-tests indicate that, there is no significant difference in decision making between mothers taken psychological help ($\bar{x}$ = 24.50) and never taken any psychological help mothers ($\bar{x}$ = 23.10).

The last specific objective of the research was to explore the difference in stress and decision making between normal weight and overweight adolescents' motherst-test was used to compare the results. The result was shown in Table 3.23.

Table 3.23:

Comparison in stress and decision making between mother of normal weight and overweight adolescents

Variables	*Group*	*N*	*Mean($\bar{x}$)*	*SD*	*df*	*t*	*sig*
Stress	Normal weight Adolescents Mothers	129	14.62	5.87	338	-9.34	.01
	Overweight Adolescents mothers	211	20.09	4.78			
Decision Making	normal weight adolescents mothers	129	19.57	6.56	338	-8.86	.01
	overweight adolescents' mothers	211	25.41	5.41			

* $p<0.05$

Table 3.23 indicates that, there is a significant difference in stress between normal weight adolescents mothers($\bar{x}$ = 14.62) and overweight adolescents mothers($\bar{x}$ = 20.09). On the other hand, there is also a significant difference in decision making of mothers between normal weight adolescents ($\bar{x}$ = 19.57) and overweight adolescents ($\bar{x}$ = 25.41). Stress is more in over weight adolescents' mothers. On the other hand, the decision-making style of overweight adolescents' mother is also poor as higher scores indicate poor decision-making capacity.

Discussion

Adolescence represents a period of adjustment crisis. It is the biological and psychosocial transition that every adolescent goes through by virtue of being an adolescent. Mother-Child relationship has a life-long effect on growth, development and trust of the adolescents. Unhealthy relation creates emotional and social impairment in adolescents i.e. anxiety, depression, anger, disruptive behavior etc.

Mothers role is very important for the normal development of their children. Mothers not only supply food and love but also guide their children. This guidance is important for children's future life. Because of maternal instruction and direction play effective role in the development of children. Sometimes mothers have problems and they live a stressful life. This situation is unhealthy and harmful for both mothers and children.

Discussion for general objective

The general objective of the research was to find out whether overweight and over schedule have any mediating relationship of maternal stress and decision making with emotional and social impairment of adolescent. For exploring this objective mediation analysis was used. A mediator variable causes the mediation in the independent and dependent variables. A variable may be said to function as a mediator variable to the extent that it accounts for the relation between the predictor and criterion variable. It explains how external physical events affect internal psychological significance. According to Baron and Kenny(1986)"a variable function as a mediator when it meets the following conditions: (i) variations in levels of the independent variable significantly account for variations in the presumed mediator, (ii) variations in the mediator significantly account for variations in the dependent variable, and (iii) a previously significant relation between the independent and dependent variables is no longer significant".

General objective of this study was divided into two parts. Such as maternal stress related and maternal decision making related. The first part displayed in Figure 1, Table 3.2 and Table 3.3 which have revealed that maternal stress does not have any significant influence on adolescent emotional and social impairment. Maternal stress has a

significant and positive direct effect on adolescents overweight and over schedule. That means maternal stress did not directly associated with their adolescents emotional and social impairment but directly effects adolescent's over weight and over schedule. The interpretation of the result was that, if mothers are stressed in her own life, she can be influenced to gain over weight and increased over schedule for their adolescents. Adolescents whose mothers have fewer problems and more industrious, they are more empathetic during later stage of adulthood. They have less anxiety, are more mature, have high self-esteem, enjoying intimate relationships and have an ability to share feelings with other people. They tend to have trusted and long-term relationships. When mothers are in problematic situation, they cannot take proper care and guide the adolescent and are not interested to discuss with the children about their crisis because they themselves are disturbed.

Mother plays the roles of caregiver, teacher, counselor, friend and educator when taking care of their children. When adolescent have a loving mother consistently responding to their needs, they build a secure and healthy life. This life long bond affects growth, development, trust and the ability to build relationships. Maternal stress is associated with adolescent's growth and development. Research evidence also explained the relationship between maternal stress and their adolescents over weight and over schedule. Beate, Kristin et al (2018) found that, maternal stress is thought to contribute to the development of obesity in children. The effects of maternal stress seem to have a long-term impact for children mental and physical health. This study also revealed that the mother's stress is associated with the behavior experienced by their adolescent. Mothers depression, emotional stress, indecision or anxiety is related their obese and overweight adolescents (Mitchell & others, 2013). Parental negative emotions are one of the main causes of overweight and obese of the children (McConley & other, 2012). One recent meta-analysis showed that children of mothers facing high degree of stress are also at greater risk of obesity. The authors experienced several potential mechanisms through which maternal stress may affect children's body mass index (BMI). Like when maternal stress was increased then that may influence children and adolescent's obesity risk. (Tate et al ,2015). Another research found a consistent positive association between maternal depressive symptoms with obesity and obesity related risky lifestyle factors in their

children (Benton et al,2015). A Search Institute poll found that, 41% of parents said their children and adolescent being overscheduled and obese in so many activities made parenting difficult (Roehlkepartain & others, 2009). So, the part of the general objective was supported by current research findings and previous literature.

Result revealed that, overweight and over schedule has direct effect on adolescents emotional and social impairment, which is statistically significant. This finding was also a part of the general objective. This result is consistent with many previous findings. Strauss (2000) found that, overweight children are highly risk to develop different types of impairment like depression, stress and anxiety. Overweight adolescents are risk in social impairment, behavioral disorder and eating disorder (Neumark et al ,2002). Dietz (1998) showed that when children begins overweight in childhood that can result in an adverse effect on future socialization. Childhood obesity affects their identities and is considered socially not acceptable (Dietz 1998; Schwimmer et al. 2003). Other studies showed that overweight and obesity in children and adolescents are associated with social and emotional impairment (Schwimmer et al. 2003; Swallen et al. 2005; Kunkel et al. 2009). Moreover, childhood overweight and obesity have significant consequences on physical, psychological and social aspects of life (Banis et al. 1988; Varni et al. 2001) According to some studies, increasing amounts of activity participation like over schedule, is related to psychosocial problems of adolescents like coping behavior, substance abuse, stress, depression(Elkind, 2001; Rosenfeld & Wise, 2000). Bohnert, Kane & Garber (2008) found that more activity involvement in Grades 9–12 predicted higher negative symptoms of social adjustment. Randall and Bohnert (2009) found that either very low (less than 5 hours per week) or very high (greater than 25 hours per week) levels of activity involvement predicted elevated levels of depressive symptoms.

The second part of the general objective was related to maternal decision making. Result displayed in Figure 2, Table 3.4 and Table 3.5 revealed that maternal decision making has not significant influence on adolescent emotional and social impairment. Maternal decision making has a significant and positive direct effect on adolescents overweight and over schedule. That means maternal decision making did not directly associated with their adolescents emotional and social impairment but directly effects adolescent's over

weight and over schedule. The interpretation of the result was that, if mothers are failed to take right decision or suffering for decision making problem in her personal life, she can be played a role for gaining over weight and increasing over schedule for adolescents.

Research findings also related to the current result. Another research examines that, there is no direct relationship between maternal decision making on child internalizing and externalizing problems (Gorka et al. 2015). Decision-making deficits are associated with adverse behavioral and health outcomes, but with evidence for specificity in this association did not found. Maternal poor decision-making reflecting is related to internalizing problems, such as depression but not directly influenced adolescents' different type of impairment (Rawal et al. 2013).

The direct effect of adolescents' overweight on their emotional and social impairment was found statistically significant in the present study. Obese and fatty children and adolescents is a serious and alarming problem in last few decades (Gungor, 2014). Last 30 years worldwide picture is focused on increasing of gaining weight about children and adolescents at an alarming rate, (Gungor, 2014). Now a days most of the city children and adolescents are being overweight or obese. Unhealthy food habit, competitive daily life, less qualitative time of parents are the reason of over weight adolescents. This over weight is affect very much negatively in adolescents' developmental period. Overweight is affecting on their personal life and behavioral outcome. When adolescents are overweight, they are easily getting fatigue and anxious. Their body structure is one of the reasons for emotional and social impairment. Everybody talks about them and sometimes they feel awkward in social context for their figure. So, they usually show the symptoms of anxiety, depression, low self esteem and many more problems. A study was conducted in 2004 to 2015, Where the number of participants were 17894. Results found that, the prevalence of anxiety and depression were increasing among overweight or obese children/adolescents was 39.80% and 21.73%. On the other hand, in normal body weight adolescents and children was 13.99% and 117.96%. Finally, research indicated that, anxiety and depression were increasing among overweight and obese children or adolescents in China (An & others,2007). Same picture was found in European countries (Fox et al, 2016). Researches also showed that obese children have gradually increased

risk of anxiety, depression, low self-esteem, anger, disruptive symptoms compared with non-obese children (Lamertz et al,2002).

Findings also indicated that over schedule had a significant and positive direct effect on their emotional and social impairment. Camp (1990) found that as students increase the number of activities they were involved in home, school and outside and the number of hours that they involved, they are increasing the risk of anxiety, depression, physical complaints and somatization. In another research it has been found that, ever-tightening grip of extracurricular activities of students are related to their social and emotional problems (Morse, 2000). Fletcher (2000) also found that, over scheduled children and adolescents are highly risk in developing impaired symptoms.

Discussion for specific objective 1

The first specific objective was to investigate whether adolescents over schedule, maternal stress and decision making have any relationship with adolescents' emotional and social impairment. Results of correlation shown in table 3.6 indicated that all these variables are positively correlated with each other. Over schedule is positively correlated with emotional and social impairment of adolescents. That means if adolescents are over schedule then their emotional and social impairment will be increased. And eventually if adolescents are balanced schedule then their emotional and social impairment decreased. This finding is consistent with the finding of Bredehoft, Dawson and Clarke (2002). They stated that if students are over-extended, that may have negative effects on their self-esteem and could lead to self-destructive behavior and also negatively attached with social adjustment, academic success and attendance.

Correlation also shown that adolescents over schedule is positively correlated with maternal stress and decision making. Maternal mental health is related to their adolescents' daily work schedule. When mothers are psychologically enriched, they can provide a balance schedule. But psychologically imbalance mother cannot provide a balance schedule. Some time they want an unrealistic demand from their adolescent. The significant positive correlation between adolescents over scheduling and maternal stress and decision making also can be explained after the findings of O,Brien and others(2007). They also found that, maternal depressive symptoms, like as negative emotion or feelings and less activity, may influence child weight related behaviors by

directly affecting their parenting style and child rearing behaviors, reducing maternal sensitivity to and nurturance of the child's needs.

Results also shown that, emotional and social impairment of adolescents is positively correlated with maternal stress and maternal decision making. Maternal stress is also positively correlated with maternal decision making.Mothers played an important role for adolescents' development. Adolescence is a period of change and transition. In this time adolescents pass through variety of complexities. Like hormonal change, identity change, role change etc. If mothers suffer any type of psychological problems like stress, depression, anxiety, indecision then it is harmful for their growing adolescents. Mothers psychological problems are connected with the adolescent's development. Healthy mothers play a significant positive role for their children. On the other hand, sufferer and psychologically unfit mothers are an alert for their children future development. Stressed mothers face more difficulties to find out their child's needs and respond in a sensitive way (Scaramella et al, 2008). Maternal negative emotions and feelings are associated with their adolescents' wrong behaviors. Which adolescents are belonging in those families may be feel poor understood by mothers and can react in more negative and possessive ways (Pinquart, 2017). Highly stressed parents may too tensed for finding an appropriate way to understand a supportive figure for their adolescents and children and to reduce their fears (DiGiovanni et al., 2004).

Discussion for specific objective 2

The second specific objective was to explore the differences in over schedule and emotional and social impairment of adolescents according to gender and body weight. In table 3.7, results revealed that, over schedule and emotional and social impairment of adolescents do not vary according to gender. At present, most of parents do not discrimination between boys and girls. Both are equal in their parents' eye. Parents are concern about their children future not their gender discrimination. May be, for this reason no significant difference was found between boys and girls scores among over schedule and emotional and social impairment. In the last few decades, Western societies has changed. The current image is that, women in the working market and of men in involving family activities. At present, the behavior, values and attitudes of girls and boys are holding the same roles in every sector (Nazroo et al, 1998). Studies of Wang et al.

(2005) and Leaf and Bruce (1987) detected also revealed no significant gender difference in education, child rearing, facilities and emotional attachments. That means due to the equal treatment of the parents, no significant gender difference has been found.

The results of the table 3.8 indicates that there is significant difference between normal weight adolescents and overweight adolescents in their over schedule and emotional and social impairment. Findings shown that over weight adolescents are more over scheduled and emotionally and socially impaired than normal weight adolescents. Todays life is more calculative and very fast. Everyone is chasing a competition. Most of the parents specially mothers are too worried about their children future. They are very conscious. As a result of over concern, mothers are forcing of their adolescents in education, good results, extra curriculum activities. So, adolescents become over scheduled and this over schedule makes them emotionally and socially impaired. Over scheduled adolescents have not enough time to take healthy food because of their packed schedule routine. Most of the time they are taking junk food from fast food shop like pizza, burger, chicken fries and cold drinks. This kind of food have high calories with no nutrition. So over schedule adolescents become over weight also. Research found that, poor and difficult life schedule may be a barrier to emotional and behavioral change in adolescents and adults with overweight and obesity (Venditti et al, 2014). Study of the Solovieva et al (2013) also indicated that arrangement of poor-worktime, such as long work hours for both male and female, over schedule for adolescents may discourage their motivation for a healthy life and in the same time increase the risk of overweight and obesity through an unhealthy appetite and decreased physical activities. According to the endocrinal model, over schedule related stress may cause neuroendocrine stress, which leads to increased secretion of cortisol, catecholamines and interleukin-6. Which may lead to fat accumulation, insulin resistance and lipid abnormalities. Over activities disturb the circadian rhythm, restricts sleep and increases neuroendocrine stress. That may cause overweight and obesity. Emotional and social behavioral change is also an important factor to clarify that findings. Lacking of motivation for healthy lifestyle behaviors may indirectly increase the risk of weight gain and obesity. The factors include an unhealthy diet, which includes fatty and sweet foods, sedentary behavior when not working and decreased sleep (Solovieva et al,2013).

Discussion for specific objective 3

The third specific objective was to compare in over schedule and emotional and social impairment of the adolescents according to their birth order. Table 3.9, 3.10, 3.11 indicated that, children without any siblings, are more over scheduled than children having siblings and they are also emotionally and socially more impaired than their counter parts. Last children of the family are also over scheduled and scored high in emotional and social impairment. Results also indicates that, middle born children are least over scheduled and have less emotional and social impairment. This finding can be explained in the current situation of Bangladesh. Only child is main concern in their parents and family. They have no siblings. So, all wishes of parents and different kind of responsibilities wait for them. For this reason, they are become over scheduled most of the time. They have no siblings that's why they did not share their feelings and emotions. This over schedule and parents pressure force them to become emotionally and socially impaired. This explanation is also suitable for first born child also. First baby is a toy for their parents. Parents become over protected and conscious for them. So, easily they are becoming over weight and show different type of impairments. Last child is parents last hope. So, last child also feels pressure from parents and family. But comparatively middle born children are well position in case of over schedule and emotional and social impairment. This finding can be explained after Bumpus et al. (2001) also. They found that first-borns were more over scheduled than second-born. They also found that, parents rated second-born siblings as having less socially and emotionally impaired than first-born adolescents, particularly during middle childhood and early adolescence.

Discussion for specific objective 4

The fourth specific objective was to find out the difference between sibling and no sibling adolescents in their over schedule and emotional and social impairment. Table 3.12,3.13,3.14 indicated that, children having no siblings are over scheduled than other children and emotionally and socially more impaired than others. On the other hand, children having brother, sister or having both brother and sister do not differ in their over scheduled and emotional and social impairment. Research also found that, only single adolescents feel more pressure and over scheduled (Smetana et al., 2004; 2005). Although mothers' perceptions of first- and second-born adolescents have no significant

difference among decision-making autonomy, stress, social problem and over pressure (Smetana et al., 2004; 2005).

Discussion for specific objective 5

The fifth objective of the present study was to find out the differences in over schedule and emotional and social impairment of adolescents according to their mother's job status, educational level, monthly family income and uses of psychological help. This objective had divided in four parts.

First part was maternal profession related. The findings of the table 3.15 indicated that, there is no significant difference between house wife mothers' adolescents and service holder mothers' adolescents in over schedule. Now a days every mother is anxious as well as conscious about their adolescent's future. Adolescents present situation is very complex and everybody is passing like a race. Most of the mothers are giving pressure their children to participate in different types of activities and are trying to enhance their need for achievement. So that this reason no significant difference has been found in over schedule between service holder and house wife mother's adolescent children. So, mothers' profession may not vary any matter for their adolescents over scheduling.

But on the other hand, a significant difference is observed between house wife mothers' adolescents and service holder mothers' adolescents in emotional and social impairment. Result revealed that house wife mother's adolescent children have less social and emotional impairment than that service holder mother's children. Generally, housewife mothers spend more time with their adolescent children than service holder mothers. As a result, a good attachment develops between mother and adolescents. Strong attachment creates good mental health and less emotional and social impairment of adolescents. This finding also can be explained by previous studies. Such as Ronan, Canoy and Burke (2009) found that, child stress, anxiety, depression can also occur in families that experience maternal less involvement with their children. Another research revealed that, adolescent's mental health problems are more likely to be associated with maternal neglect. When a mother involves in a job, she found less time to take care their children which produces variety of mental problems (Cowling, 2004).

The second part of this objective was mother's educational background related. In table 3.16, results indicate that, there is a significant difference between below graduate

educational level mothers' adolescents and graduate and above educational level mothers' adolescents in over schedule and emotional and social impairment. Highly educated mothers' adolescents have better mental health condition than apparently less educated mothers. Education is the main core part of healthy human development. It is not only the basic need of our life. It is the main food of our brain also. So, no one can ignore the importance of education. Studies have also showed that higher levels of maternal education are linked to better quality and quantity of children's schooling, discipline, emotional state and their diet (Wachs & McCabe ,2001). Moreover, mothers with higher education levels were found to more likely have a greater coping strategy to supplement family adjustment under times of stressful situations (Boyle, Racine, Georgiades, et al. 2006).Mothers with higher levels of education feel more accurate in their perception of their children's mental health and physical health compared with those with lower levels of education (Genovesi et al, 2005).

The third part of this objective was presented in table 3.17. In table 3.17, findings indicated that, there is a significant difference in over schedule and emotional and social impairment between the adolescents those who belong to below 40000-taka group and above 40000-taka monthly family income group. Results showed that, adolescents of below 40000-taka income group are less over scheduled and their emotional and social impairment also less compare to above 40000-taka income group adolescents. That means better financial condition leads the adolescents from over scheduling and emotional and social impairment related problems. Most of the time physiological problems are related to financial condition. If basic needs are achieved from environment then psychological issues are prominent to focus. Psychological problems are most common in highly educated and financially solvent families (Genovesi et al, 2005). Needy people are busy in their daily life and basic needs like food, cloths etc. But solvent people are interested to enrich their psychological wellbeing. Their needs are not only to live but also to improve social and emotional conditions. That's why they are suffering from daily life competitions like over schedule of adolescents. Those parents want to fulfil their uncomplete wish from their children. Even the children of the wealthy family could be affected by their parents' affluence. Wealthy children were also found to be at higher risks for depression, anxiety, and eating disorders (Genovesi et al, 2005). So, for

these reasons' adolescents are become over scheduled. And this over schedule makes them emotionally and socially impaired. Buss (2000) found that depression, tension and stress rates are higher in financially developed countries than less developed countries. Myers (2000) showed that, if people are too rich, they become so unhappy in their life. This study also found that, teen suicide, depression, anxiety, stress rates have increased in rich family day by day.

In table 3.18, the last part of this objective was presented. The results showed that, there is a significant difference between mothers taken psychological help (psychiatric drug or counseling/ psychotherapy) in past and never taken any psychological help mothers' adolescents in over schedule and emotional and social impairment. Those mothers are taken psychological help in their past life, they are more inconsistent than their counter part. Mothers those are suffering from psychological problems in daily life, they always feel stressed than other mothers. So psychologically unfit mother is a sign for unhealthy adolescent development. They did not provide balance schedule in their children. Some time they pressure their adolescents and adolescents become overschedule. Over schedule adolescents are always busy to engage variety of work. They did not find no time to enjoy their leisure period. As a consequence, they become socially and emotionally impaired. This finding is also consistent with the findings of previous studies. For example, studies of toddlers and adolescents suggested that maternal depression, stress, anxiety, indecision and behaviors are related to insecure attachments and positively associated with children's psychological problems (Biederman et al, 2001). Researchers have noted that, maternal psychological problem is related to their adolescents' daily hassle and behavioral problems (Bremner & Vermetten, 2001).

Discussion for specific objective 6

The sixth objective of the present research was to find out the differences in maternal stress and decision making according to their job status, educational level, monthly family income and their uses of psychological help. This objective was divided in four parts.

The first part of this objective was presented in Table 3.19. The result indicated that, there is no significant difference in stress and decision making between house wife mothers and service holder mothers. Working mothers and housewife mothers both have different

types of working load and responsibilities. Most of the people think that working mothers have better mental health because of their financial independence. But they have to play duel role in office and in home, that is stressful for them. On the other hand, housewife mothers are always considered responsible for their children failure. They also engage whole time duties without pay. So sometime they feel depressed. Finally, both are the belonging in different situation. There is no significant reason to find one more stressed or unhealthier. This study revealed that, both type of mothers has different but equal work load and responsibilities. Similar type of problems they face. That's why is no difference in stress and decision making has found. Mothers with higher levels of family pressure or job stress are more negative about parenting, whereas mothers with lower levels of family pressure or job stress (Belsky et al, 1995). This finding is not consistent with the previous findings (Belsky et al,1995). Due to different social and cultural context this different result has been found.

From table 3.20 the second part of this objective was presented. Results indicated that, there is no significant difference in stress and decision making between below graduate educational level mothers' and graduate and above graduate educational level mothers. Kersh (2018) found that, mothers in higher education, well social status, good financial condition tend to experience better decision-making skills, less depressed at work and home. But the present research finding is inconsistent with the finding of Kersh. Highly educated mothers have little bit better mental health condition than apparently less educated mothers. Education is a strength for women. Education gives them self-identity, money, dignity and social position in the society. So educated mothers are less stressed and more stable in decision making. But education is not the only factor for being better psychological condition. Culture, environment, socio economic status, perceived happy family life all are the important factors. These factors showed be explored in future studies.

Result of the table3.21 shown the third part of this objective. Findings indicated that, stress and decision making do not vary significantly between monthly family income below 40000tk group mothers and monthly family income 40000tk and above group mothers. There are lot of factors which influence maternal mental health. Such as psychological wellbeing, socio cultural environment, education, job status etc. Economic

level is one of the important factors for being well but not only factor. Others factor are also influential for maternal mental health. Research finding revealed that, lower degree of parenting stress is related to the presence of a close social network of relatives and friends in addition to a powerful bonding with the partner (Melson, Windecker-Nelson, & Schwarz, 1998). The participant mothers of the present study have close bonding with husbands as well as friends and relatives. Due to this bonding they are less stressed.
The study of Belsky et al (1995) also revealed that, maternal parenting stress can be over strongly associated to the huge number of social support available, particularly help with the children and adolescents. That's why financial condition is not playing a prominent role for increasing maternal stress.
The fourth or last part of this objective was presented in table 3.22. From table 3.22, results indicated that, there is a significant difference in stress between taken psychological help (psychiatric drug or counseling/ psychotherapy) in past mothers' and never taken any psychological help mothers. Those mothers have taken any psychological help in their past life, they are vulnerable than never taken any psychological help mothers. One longitudinal study investigated the relationship between psychological help and coping strategies of 219 mothers. Multiple regression analyses found bidirectionality in the relationship between taken psychological help and coping strategies. Result revealed that participants of poorer mental health and under higher stress used more psychological help like as psychotherapy, counseling, psychiatric drug etc (Bach & Hayes, 2002).On the other hand, findings indicated that, there is no significant difference between taken psychological help (psychiatric drug or counseling/ psychotherapy) in past mothers' and never taken any psychological help mothers' in decision making. That means those mothers had taken psychological help they were performing well in daily life. So now they are better than their previous condition. Cutrona and others (1994) found that psychological and social support helps the mothers to lessen depression, anxiety, handling indecision and stress.

Discussion for specific objective 7

The last objective of this research was to explore the difference in stress and decision making between normal weight and overweight adolescents' mothers.Results presented in table 3.23 indicated that, there is a significant difference between normal weight

adolescents' mothers and overweight adolescents' mothers in stress and decision making. Overweight adolescents' mothers are more stressed than normal weight adolescents' mothers. Mothers with high stress may have less time to supervise their children. So, the children do not follow proper food guideline. Most of the time they take easy excess food because of their mothers less time management issues. Easy excess foods are usually junk food with more calories. In this type of situation, they easily become overweight. This finding is also consistent with the finding of Parks and others (2012). They found that, children or adolescents of parents with higher degree of psychological stress eat high calories food once a week or over and become over weight. This study also revealed that, psychological stress is involved with higher expense of more fat and over sugar foods and can be attached with few times to produce food at home. Stress is also involved with obesity in children and adults (Block & others, 2009). Few researches have examined decision making style among parents and its relationship with their children's risk of obesity (Tate & others, 2015). Mothers' stress and lack of decision may affect children's close attachment and their own self-regulation skills (Anderson & others, 2012). For better understanding of the relationship between maternal stress and lack of decision with child obesity needs further exploration of this field.

Implications of the research

The present research was undertaken in the background of sparse imperial investigation in Bangladeshi context highlighting the over-weight and over-schedule mediating the relationship of maternal stress and decision making with emotional and social impairment of adolescent. The period of adolescence is a very crucial time of life. Proper socialization pattern, social expectation and readiness for adjustment in adolescence changes are very important factors in making effective adjustment with emotional and social impairment at this period and to handle the problems skillfully. Any wrong step may lead an adolescent choose a wrong path and land in a dark hole. Adolescence is very sensitive age too, when guidance and control must go together with affection, support, freedom and chances to explore, in equal proportions.

Research findings showed that mothers' stress and poorer decision-making ability adversely affect the children's emotional and social impairment and their over scheduling issues. Finally, it is worthwhile to suggest further in-depth research with larger and

representative sample in this area so as to find out more variables revealing significant relationships which may help to take proper measures for guiding this vulnerable young age to become healthy and happy individual and thus be the resources of the society. So, the study recommends further research on larger participants and with better methodological sophistication.

At the present study, overschedule scale can be taken with confident for research purpose to identify over scheduled children and adolescents in Bangladesh. It can also be served as a basic for ongoing assessment data for evaluating intervention programs focused toward reducing over schedule of children and adolescents. This research also to find out the negative consequence of over scheduled on adolescents which is needed to be control for their future life.

Limitation of the present study

The present study is not beyond its limitations. Here, some specific limitations of this study were identified and presented below.

In the present study, it was indeed a challenging task to collect data from adolescent and their mothers. It was hard to persuade mothers to participate in the data collection processes and fill out the questionnaires since they were wary of disclosing personal information. Apart from refusals from their end, mothers belonging to poor educational qualification groups did not understand the questionnaire themselves. The acknowledged challenges and their consequences can be identified as the primary limitation of the study.

The second limitation of this study was, the participants were not selected from wide geographical areas of the country. Participants were selected from only 10 schools of the Dhaka north and south city. It will be important for future studies to work with larger samples and a great number of adolescent and their mothers from different areas of Bangladesh.

The third limitation of the research could be limited availabilities of journals and articles concerning about over-weight and over-schedule mediating the relationship of maternal stress and decision making with emotional and social impairment of adolescent.

Lastly the study was to develop over schedule scale by using short number of participants. It will be important for future studies to work with larger samples of adolescent from different districts of Bangladesh.

Recommendations

On the basis of the findings of the present study, the following recommendations may be considered.

A) In future a regression analysis will need perform to know the explained variance by related another predictor.

B) For the proper physical, social and emotional development of adolescents, it is crucially needed to maintain good maternal psychological health. Besides, various relevant factors that mostly affecting the maternal psychological condition including within the present findings of the study have to be gravely considered for their betterment.

C) Adolescent obesity is not considered as a major health related problem in Bangladesh. But it is alarmingly high and gradually increasing in specific population particularly city-based adolescents. So, it is the time to take an emergency step against this problem. Otherwise it could be arising as a big issue in later life.

D) Implementing maternal concern about their adolescent children and school-based consultation programs that would be expanded to children and adolescents to promote physical activeness and healthy eating habits could have a fruitful impact.

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Appendices

1. Personal information form
2. Over scheduled scale for adolescents
3. BECK Youth Inventories of Emotional and Social Impairment
4. Life stress questionnaire
5. Melbourne Decision Making Questionnaire (MDMQ)
6. Approval of research proposal by the Ethical Review Board (ERB)
7. Information Consent Form (ICF) for adult participants
8. Information Consent Form (ICF) for adult adolescents (below 18 years old)
9. Similarity Index report by using Ithenticate Plagiarism checker