Diabetes mellitus (DM) is a typical cat endocrinopathy, which is like human type 2 diabetes (T2DM) as far as its pathophysiology. T2DM happens because of insulin obstruction and additionally cell brokenness [1]. The widespread rate for diabetes mellitus has been determined to quite an extent of epidemic proportions. Diabetic patients are patients who are also characterized as having chronic high blood sugar level which results from impaired insulin levels in blood or impaired secretion of insulin. It has two major types, first is Type 1 and the other one is Type 2. T2DM is major responsible cause of >90% of diabetes. It has affected 6.4% of people of adult group around the globe in 2010. This also leads to certain unremitting efforts to explore helpful agents for control of this disease [2].

**INTRODUCTION**

Diabetes mellitus (DM) is a typical cat endocrinopathy, which is like human type 2 diabetes (T2DM) as far as its pathophysiology. T2DM happens because of insulin obstruction and additionally ε-cell brokenness [1]. The widespread rate for diabetes mellitus has been determined to quite an extent of epidemic proportions. Diabetic patients are patients who are also characterized as having chronic high blood sugar level which results from impaired insulin levels in blood or impaired secretion of insulin. It has two major types, first is Type 1 and the other one is Type 2. T2DM is major responsible cause of >90% of diabetes. It has affected 6.4% of people of adult group around the globe in 2010. This also leads to certain unremitting efforts to explore helpful agents for control of this disease [2].
zingiberaceae) is known for most consumed spices widely internationally. It was originated in Southeast Asia and is now spread to Europe. Ginger has a great long history of being a useful herbal medicine that benefits in treating a variety of ailments that includes vomiting, pain, heartburn, and cold-induced flu and fever. More recently, it was concluded that ginger also has anti-clotting, anti-cancer, anti-inflammatory, and other analgesic activities. Hence, the main emphasis on the effects of ginger in the management of metabolic diseases and other complications related to Diabetes Mellitus is seen. Evaluation over here tells us that the good effects of ginger on diabetes mellitus have provided an insight into the active constitutes and their mechanisms of action [4]. The alterations in the lifestyle of the consumer along with the up-gradation and disease for initiating more search potent and diets are healthy on nutrients that are complementary such as products that are functional [5]. The main objectives of the study were to determine the anti-diabetic effects of Zingiber officinale and to further the effective level/dose of ginger powder in lowering the blood glucose levels in alloxan-induced diabetic rats.

**METHODS**

Ginger was procured from the Local market, Lahore, then packed in a sealed bag to avoid any further contamination until further analysis at the laboratory facility of the Food department at the University of Lahore. After removing physical contaminants like dirt, dust, and foreign particles, washing with clean water, peeling, and slicing, ginger was dried at 200ºC for 10 minutes in a hot air oven. After drying, it was grounded into fine powder by using a commercial blender. The ginger powder was packed in a sealed bag to avoid any further contamination until further analysis at the laboratory facility of the Food department at the University of Lahore. The mineral content of ginger powder was analyzed by using the method of AOAC [5]. All the 20 rats included in the study were given three different levels of ginger powder as detailed in Table 1 showing diet composition. 5 rats of Group I were not given any special diet but were fed on commercial basal feed. The rats were made diabetic by injecting alloxan mixed with 1ml distilled water intraperitoneally at the rate of 65mg/kg of body weight before the start of the experiment. After 7th day of the injection the rats were diabetic for the research purpose [4]. On 8th day which was considered day 0 of the study, the blood samples (1ml) of the rats were taken. It was then centrifuged at 30000 rpm and serums were stored in refrigerator at 4°C until further analyzed [6]. During the 4 weeks of bio-efficacy study a specified diet considering as 1% Ginger Powder, 3% Ginger Powder, 5% Ginger Powder were given to Group II, Group III, Group IV respectively throughout the experimental period. The feed and water was given adlib. The rats were kept in standard cages and water was given by bottles. The ginger powder was mixed in diets of three experimental groups very carefully. The diets consumed by the rats of all groups were calculated on weekly basis including the controlled group. 1ml blood from each rat of four groups was collected from azygos vein at the 15th and 30th days. The serum was stored as explained above. The composition of the diet of four groups of rats is given in Table 2 [7]. The blood sugar level profile components of alloxan-induced Wistar rats were analyzed by the usage of blood samples at the specified nanometer level. In order to assess the safety of seeds of Jamun and pumpkin seeds, the following tests will be performed: The serum samples of the experimental rats will be analyzed for urea by glutamate dehydrogenase (GLDH) method, whilst creatinine will be analyzed by the procedure described by Saeed et al. to evaluate the proper functioning of kidney [8]. The data thus obtained is subjected to statistical analysis by using Analysis of variance (ANOVA) in SPSS (Andy Field SPSS) to find out the effect of different percentages of ginger powder on diabetic rats.

**RESULTS**

The purpose of this study was to determine major diagnosis if the ginger powder is effective in lowering the effects of diabetes mellitus in Wistar rats or not. First of all, Ginger was peeled off and cut into slices. These slices were then put into a dehydrator to let them get dry. After drying up of ginger slices it was placed in a grinder and ginger powder was made up from those ginger slices. This entire research was conducted in the Food Analysis Labs of UVAS. Mineral analysis of ginger powder indicates the presence of 1.7 STD units of magnesium and 0.03 STD units of chromium (Table 1). The conclusions of the current study were
Sleep quality will be positively associated with emotional suppression and negatively associated with emotional reappraisal. Table 3: Pearson Product Moment Correlation Emotional Regulation and Sleep Quality. The correlation between sleep quality and emotional reappraisal is positive

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sleep Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Reappraisal Pearson Correlation (Sig. 2 -tailed)</td>
<td>1 .003 .051</td>
</tr>
<tr>
<td>Emotional Suppression Pearson Correlation (Sig. 2 -tailed)</td>
<td>-0.25 .007 1</td>
</tr>
</tbody>
</table>

Table 3: Association of sleep quality with emotional suppression and emotional reappraisal

DISCUSSION

The study partially supported the link between attachment patterns and sleep quality. The analysis showed that attachment security with parents and peers made a significant contribution to the nighttime sleep quality among youth. This suggests that insecurely attached youth has poor sleep quality whereas securely attached youth has better sleep quality. The present study has explored the attachment of youth with significant others separately in terms of three factors i.e., mother, father, and peer. The findings of this study suggested that the youth who have better sleep quality are more securely attached to their father. Whereas, the analysis with the mother factor of attachment was significantly negatively associated with sleep. The reason for the insignificant findings with mother attachment could be the cultural factor as in Pakistani society there is a patriarchal family system i.e. the father is considered as the head figure of the family and he has a major say in all matters of children and family [3,4]. The lack of significant findings may also be attributed to a lack of awareness about one's attachment with mother because of the indecisive role of mother in major decisions of child's life events. Additionally, from Bowlby's perspective of infant attachment, it is important how a mother manages the quality time for an infant during her busy day if she fails to provide the secure attachment then-infant is left anxious or insecure [8]. In the study responsibilities so they might not able to manage quality time for their children which is reported as non-significant findings. The important results lead to the suggestion of a particular role for attachment protection in the creation of the quality of sleep of young people in terms of its seven components i.e. subjective quality of sleep, sleep delay, sleep length, regular efficiency of sleep disorders, sleep drug usage, and daytime dysfunction. Like the scholars, previous researches have also suggested that the children who have for some reason developed poor attachment patterns with parents are likely to develop disturbed quality of sleep in their later life [12] and a growing number of researches in social sciences have found that individuals' sleep quality is significantly linked to the quality of their attachments with others [11]. Although these findings are consistent with the literature previous psychological research is rare in this area. Given that, because most of the findings are founded upon biological studies of child attachment which has studied the role of REM sleep in the context of attachment security of infants with their mothers [7]. A study has also been conducted on older adults [13] who have also supported the notion of a significant relationship between attachment security with parents and quality of sleep. This study has also explored the link between sleep quality and emotion regulation it was expected that sleep quality will be significantly related to both emotional reappraisal and emotional suppression in youth. The results of statistical analysis of the present study proposed that no significant relationship exists between the sleep quality and emotion regulation. This is supported by the previous literature. Notably in the previous findings regarding sleep problems do suggest that a bidirectional association exists between emotional regulation and sleep quality such that poor emotional regulation would lead to sleep disruption and, in turn, poor sleep quality would predict poor emotional well-being [3]. One possible reason for the significant findings as extracted from literature review could be that emotion regulation has been seen as more of a mediator rather than as correlate i.e. some scholars in their studies have explored that emotion regulation act as a mediator in the process of attachment and sleep quality which suggests that these constructs of attachment and sleep are significantly related but they are bridged by their mechanism of emotional regulation [21]. Other important possible explanations for non-significant findings could be cross-cultural differences. However, most of the exploring this association have been conducted in western contexts [17]. One such study regarding disrupted sleep and negative emotion regulation among youth has been found in the Pakistani context with significant findings [6]. Another important finding of the study suggests that the majority of the youth in the sample had identified that they had poor quality of sleep and among the sample, female participants reported poorer sleep quality as compared to the males in the sample. Relevant findings of the poor sleep quality among Pakistani adolescents have also been reported by a study carried out in Karachi that has found that every third person among the participants had poor sleep quality (Ahmed, 2013). This issue needs to be explored in detail for beforehand prevention of sleep disturbances among the Pakistani youth.
CONCLUSIONS

The present study explored the association between attachment patterns, emotional regulation and sleep quality among non-clinical sample of Pakistani youth. In this perspective, three hypotheses were formulated. First, a positive relationship exists between attachment patterns and subjective emotional regulation. The second hypothesis was that significant associations exist between attachment patterns with significant others and sleep quality of youth. The findings of present study suggest that relationship does exist between attachment patterns and quality of sleep among youth. Additionally, the findings of current study also demonstrated that significant association exists between emotional regulation and sleep quality.

REFERENCES


