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**Translation and Adaptation of Attitude Towards Sexuality Scale (ATSS) Urdu Version in Pakistan**

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Kashmala Zaman<sup>1</sup>, Humaira Jami<sup>2</sup>, Zafar Ahmad<sup>3</sup>**Abstract**

Attitude Towards Sexuality Scale (ATSS) was adapted and translated for the use on Pakistani population. Convenience sampling was used for data collection and adolescents from several schools and colleges of Islamabad and Rawalpindi. A total of 316 adolescents participated in the study. ATSS developed by Fisher & Hall (1988) was used to assess sexual attitudes of adolescents. Initially, to assess the validation of ATSS on the current population, Confirmatory Factor Analysis (CFA) was run to assess model fit but it resulted in identified problems because it was uni-dimensional scale so Exploratory Factor Analysis (EFA) was conducted. EFA showed the identification of two factors of the scale namely Liberal Attitude Towards Sexuality and Conservative Attitude Towards Sexuality. According to the results; Adolescents with conservative attitudes towards sexuality are less satisfied with their bodies and they are also more likely to have been involved in overeating or eating withdrawal. While adolescents with more liberal attitudes towards sexuality are more likely to experience body image guilt. Conservative attitudes are also indicative of a negative correlation with life skills. Results showed that ATSS is a uni-dimensional scale but the factor analysis showed two major subscales. Based on the findings, we can conclude that those who oppose the sexual, social, and cultural norms of our society are more likely to develop psychological issues such as poor life skills, negative body image and disordered eating. Hence, within Pakistan, sexual attitudes are more conservative and they are also more acceptable in comparison to liberal attitudes.

**Keywords:** Sexuality Scale, Adolescents, Sexual Attitude

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**Introduction**

Sexuality is about feelings, behaviors, our

pattern of thinking and interaction with others and to give respect to others sexual behaviors and attitudes, although, conservatives are not willing to accept others point of view (Fisher & Hall, 1988). In West, sex is considered as recreational whereas in Asian culture, procreative. Asians tend to have more conservative sexual attitudes (Youn, 2001). Cultural values have strong impact on sexual behaviors. In Asian culture, adolescents raised in social settings and sexual behaviors are prohibited where no sex education provided to the young adults and adolescents where adolescents sexual behaviors disapproved by their parents. Consciously or unconsciously, students suppress their sexual identity (Sohn &

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Cheon, 2005).

Research has shown that students in West, particularly USA, have more information and sexual rights than Western students (Bae & Kim, 2015). According to Woo et al. (2012), sexual behavior and knowledge are positively correlated. It was found that sexual knowledge and behaviors are associated in Western culture than in Asian (Bae & Kim, 2015).

Conservative sexual behaviors and attitudes are also linked with sexual identity which develop at middle and secondary level students (Ahrold & Meston, 2010; Shin et al., 2010). At college and high school level, their sexual identities shapeup with moral, family and cultural norms (Cha et al., 2007). As a result, students are more prone towards dating, pregnancy and unsafe risky behaviors (Hahm et al., 2006). Students high level of risky behaviors leads to drugs, infectious diseases, and sex for money (Wetherill et al., 2010). However, in Pakistan, this area of research need attention as till now, literature lack in this domain and hardly found any research. The present research will help to contribute in this specific area.

Media is playing vital role in the development of such behaviors among adolescents. Lack of proper discussion and information sharing mechanism lead to more problematic attitudes among adolescents like rise in pre-marital sexual activity, abortions and infectious transmitted diseases. Females are more prone to unprotected sex, STDs and HIV as compare to male (Malleshappa et al., 2011). In Western culture, conservative attitudes towards sexual attitudes exists and this study will help to understand such issues. On the onset of puberty, adolescents are not well aware about the bodily changes which leads to body image issues as well. and

disordered eating behaviors (Russell & Joyner, 2001).

A research related to sexual attitudes indicates that the more the attitude towards sexuality is conservative, the more a respondent will have acceptance of rape myths. Furthermore, young and better educated individuals showed fewer stereotypic, negative, and violence accepting attitudes and lower rape myth acceptance (Gravelin et al., 2019). So, we can see that conservative attitude of people leads to acceptance of rape related myths (Valerie et al., 2021).

Examining attitude towards sexuality is crucial now days as the level of sexual frustration in Pakistan is rising that in turn is leading towards child sexual abuse and other sexual disorders. The reason for this is that people here hold conservative attitude towards sexuality and repress their sexual identity and are unable to express and channelize it properly. Likewise, life skills play a vital role in childhood and adolescents and are essential for the development of a healthy personality. Appropriate development of life skills and how to use them effectively are key ingredients for the better development of psychologically healthy youth.

### **Objectives**

Translation and adaptation of the Attitude Towards Sexuality Scale (ATSS) in Urdu.

### **Research Design**

This is a qualitative-cum quantitative study with a cross-sectional design.

### **Sample and Procedure**

Data was collected through convenience sampling method and adolescents from several schools and colleges of Islamabad and Rawalpindi were approached. A total of 316 adolescents participated in the study. The demographic characteristics of the sample are presented in Table 1:

**Table 1**

*Mean, Standard Deviation, Frequency, and Percentage along with Demographic Variables across Gender (N=316)*

| Demographics              | Boys<br>(n = 147) |      | Girls<br>(n = 169) |      | M        | SD        |
|---------------------------|-------------------|------|--------------------|------|----------|-----------|
|                           | f                 | %    | f                  | %    |          |           |
| Age                       | -                 | -    | -                  | -    | 15.83    | 1.66      |
| Education                 | -                 | -    | -                  | -    | 10.05    | 1.84      |
| Family size               | -                 | -    | -                  | -    | 4.70     | 2.04      |
| Family Income             | -                 | -    | -                  | -    | 58588.18 | 123800.03 |
| Family System             |                   |      |                    |      |          |           |
| Nuclear                   | 79                | 53.7 | 114                | 67.5 | -        | -         |
| Joint                     | 51                | 34.7 | 42                 | 24.9 | -        | -         |
| Missing                   | 17                | 11.6 | 13                 | 7.7  | -        | -         |
| Place of Living           |                   |      |                    |      |          |           |
| Urban                     | 121               | 82.3 | 148                | 87.6 | -        | -         |
| Rural                     | 21                | 14.3 | 19                 | 11.2 | -        | -         |
| Missing                   | 5                 | 3.4  | 2                  | 1.2  | -        | -         |
| Part of Awareness Program |                   |      |                    |      |          |           |
| Yes                       | 26                | 17.7 | 50                 | 29.6 | -        | -         |
| No                        | 121               | 82.3 | 119                | 70.4 | -        | -         |

## Instruments

### Demographic Sheet

To keep into consideration the demographic variables influence on the participants; basic information about their bio data was collected such as their sex and age. Additionally, other relevant information was also asked for, such as the occupation of the participant, place of living, participation in awareness programs and their sources forgetting puberty, and religious knowledge. Information related to their parents was also collected.

### Multidimensional Body Self Relation Questionnaire-Appearance Scale (MBSRQ-AS) Urdu Version

The scale was originally developed by Cash (2000) and then translated by Naqvi and Kamal (2017). The Urdu version of the scale consists of 27 items that are further divided into four subscales. Within this study, only one subscale was used i.e., Body Area Satisfaction sub-scale. The measure is rated on a 5 point likert scale; 1 means dissatisfied

and 5 satisfied. Higher scores represent more satisfaction with body parts, while lower scores represent more disappointment.

### Body Image Guilt and Shame Scale-Urdu Version (BIGSS-U)

This scale consists of 15-items that are scenario-based options rated on a 5-point Likert (1-5) and filler items included externalization/ rationalization and detachment. There are two subscales. Body Image Guilt and Body Image Shame with alpha reliability of .88, and .91 respectively for the original scales (Thompson et al., 2003). High scores indicate higher levels of guilt and shame.

### Social Skills Scale

This scale consists of 52 items developed by Khan and Pervez (2005). It is 4-point Likert scale (0-4). Only three subscales were adapted and translated into Urdu (Oxfam, 2017). Self-control constituted items 22 to 25, Communication subscale constituted items 9 to 18, and Empathy

constituted items 19 to 21 with reliability .74, .76, and .68 respectively. High scores indicate more social skills.

### **Questionnaire of Executive Functioning (QEF)**

The Urdu translated version of the scale (Oxfam, 2017) was based on the original scale developed by Geurten et al. (2016). The scale can further be divided into 8 subscales and has a 4-point Likert scale. Only two subscales were used in the following study i.e., Decision Making (Initiation/Planning) and Self-Awareness (Self-Monitoring) with reliability of .83 and .78 respectively. The items of Planning/Initiation are reverse coded. High score indicates better decision making and higher self-awareness.

### **Disordered Eating Behavior Scale**

Developed by Muazzam and Khalid (2011), the scale is rated on a 5-point scale (0-4). The scale has 26-items and has four subscales. However, only two subscales were used, Eating Withdrawal, and Overeating. with alpha reliability of .84, and .83 respectively. Scoring higher implies higher disordered eating.

### **Attitude Towards Sexuality Scale (ATSS)**

The Urdu translated version of the scale was (Oxfam, 2017) based on the original scale developed by Fisher and Hall (1988) with a reliability of .75. Items 3, 4, 6, 7, 10, and 12 reverse score items. The scores fall from 12 to 60 and lower scores indicate conservative attitudes while high scores indicate more liberal attitudes towards sexuality.

To make the scale more easily understandable, English synonyms for certain difficult words were added such as pregnancy, prostitution etc. The validation study was conducted after the tryout of the initial English version. In the validation study, the Urdu versions were used.

### **Validation of Attitude Towards Sexuality Scale (ATSS)**

In this phase, ATSS was translated and

adapted in Urdu language, so that it could easily be understandable by the sample. For the current study, only Urdu version of the scale was administered on the sample. The standard guidelines for translation and adaptation developed by Sousa and Rojjanasrirat (2010) were followed:

Step 1: Forward translation of the original Instrument into the Urdu language.

Step 2: Comparison of the received translated versions in a committee.

Step 3: Back-translation of Urdu selected items into English.

Step 4: Comparison of the received back-translated versions for final selection in a committee.

Initially, the instructions, items, response format of the three back translations were compared in a committee with the instructions, items, and response format of the original English version for wording, and grammatical structure of the sentences, similarity in meaning and relevance. The committee consisted of three subject matter experts (two PhD, and one M.Phil.) and one researcher of the study.

During the tryouts, it was suggested by experts like the heads of the institutions and Oxfam facilitators in Rawalpindi/Islamabad, to change certain words i.e., '*jinsi*' [sexually] was replaced with '*jismani*' [physical], and use more culturally relevant words i.e. add synonyms like kiss and prostitution. After making the recommended changes however, two of the items (10 and 11) were corrupted and lost their original meaning and as such were excluded from the study. Furthermore, one item (1) was removed because it was culturally inappropriate.

Confirmatory Factor Analysis was run to assess model fit of ATSS which resulted in many identified problems. Because all the items loaded on one general factor and the items overlapped on single factor, therefore, it is considered to be a uni-dimensional scale.

For current sample it appeared to be uni-dimensional, hence, exploratory factor analysis (EFA) was conducted using SPSS version 21.

### **Exploratory Factor Analysis (EFA) of Attitude Towards Sexuality Scale (ATSS)**

The data in the present study was 10 times of the total items and was appropriate for EFA (Field, 2005).

As mentioned earlier, ATSS contains items that cover vast areas of sexuality and a

person's attitude may not be the same for each phenomena (on a heterogeneous measure), therefore, Varimax (orthogonal) rotation was used for the extraction of meaningful factors. This is a recommended method for factor extraction because in social sciences, some latent variables are often not correlated (Costello & Osborne, 2005). Number of factors was also fixed to try different solutions.

**Table 2**

*EFA for Urdu Version of ATSS (N = 316)*

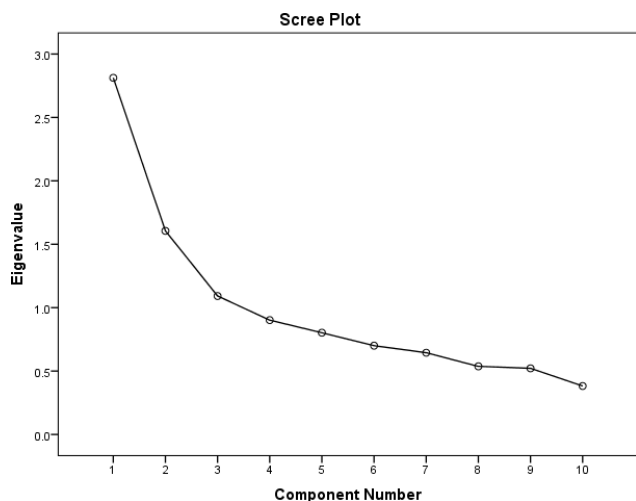
| Items               | Factors |       |
|---------------------|---------|-------|
|                     | I       | II    |
| 6                   | .78     | .06   |
| 12                  | .75     | -.09  |
| 4                   | .69     | .06   |
| 7                   | .67     | -.07  |
| 3                   | .60     | -.20  |
| 8                   | .10     | .73   |
| 2                   | -.27    | .62   |
| 1                   | -.29    | .54   |
| 9                   | -.07    | .53   |
| 5                   | .18     | .40   |
| Eigen Value         | 2.81    | 1.60  |
| % of Variance       | 26.85   | 17.32 |
| Cumulative Variance | 26.85   | 44.17 |

*Note.* Boldface letters indicate high factor loadings on a particular factor. Factor I = Conservative Attitude Towards Sexuality; Factor II = Liberal Attitude Towards Sexuality.

The scree plot providing evidence for the two factors solution of the Urdu version. According to the extracted factors, only two gave relevant results; as such two out of the three extracted factors were kept. The eigen values of the converged factors (on 3 iterations) were more than 1 which explained 44.17% of cumulative variance

(see Table 2).

On the basis of acceptable factor loadings, the two-factor solution was kept. Face validity of the grouped items and eigen values > 1. There were no cross-loadings with other factors in any of the items categorized by specific factors.



**Figure 1**  
ATSS Scree Plot (Urdu Version) (N=316)

For content validity, they were then to be labeled on the basis of content. This task was delegated to 9 judges (four MPhil scholars and five PhD scholars in Psychology) so that they would suggest an appropriate label basis on the content of each factor. Based on the common nature of the items and an agreement of above 75%, Factors I and II were given the names Conservative Attitude Towards Sexuality and Liberal Attitude Towards Sexuality respectively.

Liberal items 1, 2, 5, 8, and 9 are loaded, whereas Conservative items 3, 4, 6, 7, and 12 are loaded. The Urdu version of the ATSS (ATSS-U) has ten items on a 5-point Likert scale. Liberal Sexuality refers to a willingness to recognize people's various sexual practices, sexual selections, contraceptive usage, abortion, and sexual substitute. Liberal items' value ranges from 5 to 25 and scoring higher indicates a more liberal view regarding sexuality. Conservative Sexual Attitude refers to a refusal to embrace different sexual habits and a preference for traditional sexual partnerships. The conservative items score range from 5-25

#### Test-retest Reliability of ATSS

The Scale had an initial reliability of .47,

which is relatively poor. However, after examining the overall scale's reliability, it was decided to compute test-retest reliability as the scale evaluates several aspects of sexuality, and a person who agrees with one domain may not necessarily agree with the other.

Data for test-retest were collected from a university of Islamabad ( $n = 44$ ) with age range of 17 to 18 years ( $M = 17.77$ ,  $SD = 0.42$ ). Permission was taken to collect the data among the students. All the ethical considerations were maintained and participants were ensured that their confidentiality would be maintained. Initially, the questionnaires were distributed with the instructions to write their roll number on it so that the pairs could be correlated. The second administration was conducted after one week with the same instructions, and finally the pair of scores were correlated. The reliability is fairly good after studying test-retest reliability (.85).

#### The Relationship between the Variables in the Study

Conclusively, the Pearson-Product Moment Correlation  $r$  was calculated to examine the trends in the relationship between the research variables (see Table 3). The construct validity, or total subscale correlation of the ATSS-U demonstrates that the Liberal and Conservative Attitudes Towards Sexuality subscales are substantially associated with the total score, showing high construct validity. Negative association among subscales exists, indicating that they measure the opposing side of sexuality attitudes.

**Table 3**  
*Correlation Matrix across Study Variables (N = 316)*

| Sr #        | Variables | M     | SD    |   |       |        |       |      |       |       |       |       |       |       |       |       |       |       |
|-------------|-----------|-------|-------|---|-------|--------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |           |       |       | 1 | 2     | 3      | 4     | 5    | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    |
| 1           | ATS       | 29.60 | 6.37  | - | .87** | .24**  | .17** | .02  | -.00  | .04   | .20** | .23** | .20** | .23** | .15** | .22** | .19** | .14*  |
| 2           | CATS      | 11.30 | 5.36  | - | -     | -.17** | .18** | -.03 | -.06  | -.00  | .14** | .20** | .24** | .23** | .16** | .24** | .17** | .19** |
| 3           | LATS      | 12.94 | 4.34  | - | -     | -      | .05   | .13* | .13*  | .11   | -.10  | -.05  | .12*  | .00   | -.05  | -.03  | .01   | -.05  |
| 4           | BS        | 27.79 | 8.82  | - | -     | -      | -     | -.02 | .01   | -.05  | .06   | .20** | .29** | .26** | .12*  | -.09  | -.12* | -.02  |
| 5           | BIGS      | 79.57 | 18.70 | - | -     | -      | -     | -    | .92** | .91** | -.08  | .06   | .10   | -.01  | .04   | .20** | .15** | .16** |
| 6           | BIGS_BIG  | 41.59 | 10.19 | - | -     | -      | -     | -    | -     | .70** | -.06  | .11*  | .16** | .03   | .08   | .16** | .14*  | .10   |
| 7           | BIGS_BIS  | 37.93 | 10.16 | - | -     | -      | -     | -    | -     | -     | -.01  | -.01  | .03   | -.05  | -.00  | .21** | .13*  | .19** |
| Life Skills |           |       |       |   |       |        |       |      |       |       |       |       |       |       |       |       |       |       |
| 8           | Pln/Ini   | 12.13 | 2.34  | - | -     | -      | -     | -    | -     | -     | -     | -.01  | .05   | .02   | .06   | -.07  | -.05  | -.05  |
| 9           | SA        | 11.29 | 2.48  | - | -     | -      | -     | -    | -     | -     | -     | -     | .39** | .37** | .33** | -.11* | -.12* | -.05  |
| 10          | Com       | 27.53 | 5.44  | - | -     | -      | -     | -    | -     | -     | -     | -     | -     | .48** | .35** | -.08  | -.12* | -.00  |
| 11          | Emp       | 9.58  | 2.15  | - | -     | -      | -     | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 12          | SC        | 11.67 | 2.68  | - | -     | -      | -     | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 13          | DEB       | 35.02 | 8.78  | - | -     | -      | -     | -    | -     | -     | -     | -     | -     | -     | -     | .15** | -.06  | .17** |
| 14          | EW        | 18.86 | 5.95  | - | -     | -      | -     | -    | -     | -     | -     | -     | -     | -     | -     | -     | .79** | .74** |
| 15          | OE        | 16.15 | 5.49  | - | -     | -      | -     | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | .17** |

*Note.* ATS = Attitude Towards Sexuality; CATS = Conservative Attitude Towards Sexuality; LATS = Liberal Attitude Towards Sexuality; BS = Body Satisfaction; BIGS = Body Image Guilt and Shame; BIGS\_BIG = Body Image Guilt; BIG\_BIS = Body Image Shame; Pln/Ini = Planning/Initiation, SA = Self-Awareness; Com = Communication, Emp = Empathy, SC = Self-Control; DEB = Disordered Eating Behavior; EW = Eating Withdrawal; OE = Overeating  
 \* $p < .05$ . \*\* $p < .01$

Body satisfaction is inversely correlated to sexual attitudes. This demonstrates that when attitudes on sexuality get more liberal, all other issues like dissatisfaction with his/her own body increases. The findings also showed that as people's attitudes toward sexuality increases, eating withdrawal and overeating (disordered eating

behaviors) rise as well. Furthermore, attitudes regarding sexuality are strongly negatively connected with all life skills. This suggests that the more liberal one's attitude regarding sexuality, the worse one's life skills become, and vice versa.

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## Discussion

The research focus was the translation and adaptation of Attitude Towards Sexuality Scale (ATSS). The role of life skills, body image concerns and disordered eating behaviors were studied with attitudes of youth towards sexuality. In the Tryout phase, questionnaires were modified keeping in view the difficulty levels and issues reported by the participants.

The milder terms were used keeping in view the culture issues as this topic is culturally sensitive so it was not appropriate to use term (Jinsi). Data was collected from both urban and rural settings to make it a heterogeneous sample. Thirdly, teachers and parents' concerns were also given weightage during the research.

The items of the scale were changed as per the suggestions; item 10,11 were excluded, item 1 in the original scale was eliminated as it was not culturally appropriate. The reliability of the scale was .47. Whereas, at federal, Punjab, Sindh, KPK, AJK and Balochistan, it was .62, .44, .25, .51, .39, and .37, respectively which shows cultural differences and the construct is culturally dependent (Bae & Kim, 2015; Baker et al., 2013; de Guzman & Nishinab, 2014; Ho et al., 2011; Sohn & Cheon, 2005; Youn, 2001).

Exploratory factor analysis (EFA) was accompanied to validate the ATSS scale. Hence, CFA could not be conducted as the scale was unidimensional (Fisher & Hall, 1988). As a consequence of the EFA, two factors emerged: one with items expressing Conservative Attitude Toward Sexuality, and the other with items representing

## Liberal Attitude Toward Sexuality.

The researcher of this study had difficulty obtaining authorization from school/college authorities since the school/college principals and facilitators, were rather conservative (in the context of sexuality). As a result, they were hesitant to provide authorization. The psychometric qualities of the measures were found to be within acceptable limits, however, sexuality-related measures were modified due to cultural significance.

Table 3 shows that attitudes regarding sexuality have inappropriate association with life skills such as communication, empathy, and self-control, as well as pleasure. However, it was linked to eating behaviors as well as body image. Culture, politics, history, and socioeconomic issues all have an impact on sexual ideals (Hoetal., 2011). Because of socio-cultural norms, a liberal attitude toward sexuality is frequently deemed inappropriate in our culture. It may also encourage participation in many undesirable sexual practices such as pornography, sexual promiscuity, homosexuality, and so on. Body image guilt and shame, as well as disordered eating patterns, may be exacerbated by such actions.

Table 3's results on the association between variables revealed a negative relationship between attitude toward sexuality and physical satisfaction. However, it was linked to disordered eating patterns in a beneficial way (eating withdrawal and overeating).

The relationship between disorderly eating habits and sexual attitude (Table 3)



demonstrates that when the prevalence of disordered eating practices rises, so do views regarding sexuality, and vice versa. Evidence also suggests that having a more permissive attitude regarding sexuality is linked to greater behavioral issues, such as disordered eating (Brandhorst et al., 2012). Research also shows that physical self-image issues are more directly associated with inappropriate eating behaviors (Cash & Pruzinsky, 2002; Cooley & Toray, 2001 a, b).

### **Limitations and Suggestion**

Because sexuality is a culturally sensitive and often considered age inappropriate topic, obtaining permission for data collection was difficult. As a result, convenience sampling was used in this study; however, future studies would be more informative if they focused on selective samples that could be explored in depth. A mixed-methods study would allow for a more nuanced and in-depth examination of the subject. Adolescents were shy during interviews; therefore, self-reporting should be favored for more sensitive sexual questions.

### **Implications of the Study**

The findings of this study will aid caregivers, instructors, and doctors in developing more successful techniques for conducting educational programs for teenagers on changes occurring during puberty for sexual and reproductive health. Because adolescent males are often hesitant to seek help from their parents about their sexual and reproductive health difficulties, parents should be trained on how to talk to their sons about these topics. Body satisfaction has been discovered to be a protective factor against disordered eating behaviors, and it should be encouraged in adolescents to improve their physical and mental health.

### **Conclusion**

In conclusion, those holding liberal attitudes towards sexuality within Pakistan (and

culturally similar societies) may be at a higher risk for developing eating disorders and psychological problems. Hence, it becomes apparent that our culture suppresses sexuality as it is a sensitive issue and is not as accepting of liberal attitudes towards sexuality which may be why the adolescents with more liberal attitudes develop body image concerns and disorderly eating behaviors.

### **Contribution of Authors**

Kashmala Zaman: Conceptualization, Investigation, Data Curation, Formal Analysis, Writing - Original draft

Humaira Jami: Conceptualization, Methodology, Formal Analysis, Writing-Reviewing & Editing

Zafar Ahmad: Conceptualization, Writing - Reviewing & Editing

### **Conflict of Interest**

There is no conflict of interest declared by authors.

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