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RELATIONSHIP BETWEEN PREVALENCE OF GENDER DYSPHORIA, PSYCHOLOGICAL DISTRESS AND SELF HARM AMONG ADOLESCENTS

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ABSTRACT

The current study aimed to assess the relationship between prevalence of gender dysphoria, psychological distress and self-harm among adolescents of Azad Jammu and Kashmir about the demographic variables (gender, age, family system; nuclear or joint residence, parents; living together or separated). A sample of 300 students from adolescents of Azad Kashmir was taken. Utrecht Gender Dysphoria Scale - Gender Spectrum (UGDS-GS), Kessler Psychological Distress Scale (K10), and Inventory of statements about self-injury (ISAS) were used. Data were analyzed using SPSS (Statistical Package for Social Sciences) software. Prevalence of Gender Dysphoria indicates that the population is showing the presence of Gender Dysphoria on moderate level the most. It is also shown that gender dysphoria has a positive impact on psychological distress and self-harm. Correlation yielded that there is a positive relationship between Psychological distress and Self-harm. There is a significant difference in males and females with respect to gender dysphoria, psychological distress and self-harm. Results have indicated the influence of parental status on these variables.

Keywords: *Gender Dysphoria, Psychological Distress, Self-harm, Adolescents.*

INTRODUCTION

Gender dysphoria has become a very important topic in the present milestone. It is stated as confusion about one's own gender and is mostly found in teenagers. It causes serious mental health issues, two of which are psychological distress and self-harm. This study aims to investigate the connections between gender dysphoria, psychological distress, and self-harm in adolescents. For this purpose, hypotheses that were made are a) gender dysphoria will have a positive impact on self-harm and psychological distress b) there will be a positive relationship between psychological distress and self-harm c)there will be positive relationship between Gender Dysphoria, Psychological distress, and Self-harm d) there will be a significant difference between males and females with respect to gender dysphoria, psychological distress and self-harm and e) there will be high rate of gender dysphoria in adolescents with separated parents. Three hundred adolescents between the age range of 13 to 18 years of Azad Kashmir participated in the study. Utrecht Gender Dysphoria Scale (Jenifer et al., 2020), Kessler Psychological Distress Scale (Kessler et al., 2003) and Inventory of statements about self-injury (Klonsky & Glen, 2009) were administered to participants. Gender Dysphoria was found to have a positive relation with psychological distress and self-harm. The relationship between self-harm and psychological distress was also seen to be positive. It was also seen that there is a difference in the rate of Gender Dysphoria in males and females. Gender dysphoria was seen to have a positive impact on Psychological distress and Self-harm. Furthermore, it was seen that children with separated parents are more prone to Gender Dysphoria. The findings of this

research helped enhance knowledge of everyone on Gender Dysphoria and helped in bringing awareness in this regard. The simple reasons behind Gender Dysphoria (GD) are being linked to modelling, reinforcement and parental behavior. However, other factors such as parental ignorance and lack of acceptance from society contribute to Gender Dysphoria and problems related to it. (Brown, 2022). Children who face gender identity issues are more depressed and face anxiety. (Peterson, Matthews et al., 2017). Among these children, the rate of suicidal ideations and self-harm is also seen to be high. (Grossman & D'Augelli, 2007).

A research was done in Cicinnati according to which most young males started getting symptoms of gender dysphoria during 12 to 22 years of age. Many of these suffered from psychological problems and had attempted suicide. Suicide or suicidal ideations are common problems for gender dysphoria patients. A high school survey suggested that 2.7 to 1.2 adolescents considered themselves unsure about their gender. People who are diagnosed with gender dysphoria are more prone to depression, fear and suicidal ideations. (Guerreiro et al., 2017).

In their 2014 research, Miret and their team discovered that a significant portion of the population had considered or attempted suicide. Their findings, based on interviews with 4,583 individuals, showed that 3.67% had contemplated suicide, and 1.46% had made a suicide attempt at some point in their lives. Moreover, systematic interviews with transgender individuals revealed an alarmingly high rate of suicide attempts, with up to one-third of participants reporting having attempted suicide on one or more occasions. The rates of suicide attempts and suicidal thoughts was high in transgender people. This suggested that people who face gender identity issues are more likely to fall prey of psychological problems.

Research in India found that transgender individuals experience significant mental health challenges, including depression, anxiety, and suicidal thoughts. They also face severe social discrimination, such as transphobia, harassment, and violence. This includes fear of social rejection, internalized transphobia, and the stress of concealing their identity. Other studies confirm higher rates of mental health issues and substance abuse among transgender women compared to the general population (bilsen, 2018).

Research in the United States has shown a growing prevalence of gender diversity, with approximately 5% of young adults identifying as transgender or non-binary. This includes individuals who identify as a gender different from their sex assigned at birth, as well as those who identify as neither male nor female, or as both. A 2021 Pew Research Center survey found that gender-neutral pronouns are increasingly recognized, with 26% of U.S. adults knowing people who uses “they” or “them”. Brown, A. (2022).

Within Pakistani cultural contexts, individuals experiencing gender dysphoria, often biologically male or intersex, are frequently recognized as belonging to a 'third gender. Sharpe, (2004) notes that they usually refer to themselves as females and many of them undergo castration. Unfortunately, there are no researches done on Gender Dysphoria in Pakistan. Some people only dealt with cases related to Gender Dysphoria but o proper research has ever been done in this regard. Hence this study is beneficial for many who want to know about these conditions and it serves a purpose of bringing awareness.

Objective

1. To explore the prevalence of gender dysphoria among adolescents.
2. To explore the impact of Gender Dysphoria on Psychological distress and Self-harm.
3. To investigate the relationship between prevalence of gender dysphoria, psychological distress and self-harm.
4. To investigate the role of demographics (gender, parental status) on prevalence of gender dysphoria, psychological distress and self-harm.

Hypothesis

Following hypotheses were formulated from this research:

1. Gender dysphoria will have a positive relationship with self-harm and psychological distress.
2. There will be a positive relationship between psychological distress and self-harm.
3. Gender dysphoria will have a positive impact on Psychological distress and Self-harm.
4. There will be a significant difference between males and females with respect to gender dysphoria, psychological distress and self-harm.

5. There will be high rate of gender dysphoria in children with separated parents.

Research Methodology

Measures

Utrecht Gender Dysphoria Scale - Gender Spectrum (UGDS-GS)

This scale was developed by Jenifer et al., (2020). The intensity of gender dysphoria was assessed using the Utrecht Gender Dysphoria Scale (UGDS). This self-report instrument consists of 18 statements rated on a five-point Likert scale, ranging from strongly agree to strongly disagree. The UGDS demonstrated excellent internal consistency (Cronbach's alpha = 0.97). Total scores range from 18 to 90, with higher scores indicating greater severity of gender dysphoria.

Kessler Psychological Distress Scale (K10)

The Kessler Psychological Distress Scale (K10), developed by Kessler et al. (2003), is a widely used self-report measure of psychological distress. It consists of 10 items assessing the frequency of various emotional symptoms experienced within the past week. Responses are rated on a five-point Likert scale, ranging from "none of the time" to "all of the time." The K10 has been shown to be a reliable and valid screening tool for identifying individuals with varying levels of psychological distress. The scale demonstrates good internal consistency, with a Cronbach's alpha coefficient of 0.88.

Inventory of statements about self-injury (ISAS)

The Inventory of Statements About Self-Harm (ISAS), developed by Klonsky et al. (2008), is a 13-item self-report measure assessing self-harm behaviors. Each item presents a statement related to self-harm with three response options: "not relevant," "somewhat relevant," and "very relevant." Total scores are calculated by summing the responses across all items, with higher scores indicating greater severity of self-harm behaviors. The ISAS demonstrated strong internal consistency with a Cronbach's alpha coefficient of 0.93.

Sample

The total number of participants involved in the study (N=300), 150 males and 150 females. The age of all participants is 13 to 18 years. All the participants are adolescents

Sampling Technique

Convenient sampling Technique has been used.

Procedure

A sample of 300 adolescents participated in this study. Prior to data collection, necessary ethical approvals were obtained. Informed consent was secured from all participants, emphasizing their right to withdraw at any time and ensuring the confidentiality of their responses. Participants were provided with detailed information about the research procedures and its potential benefits. Adequate time was allotted for questionnaire completion. Upon completion, all participants were thanked for their valuable contributions.

Results

Table 01

Frequency And Percentage Of Participants (N=300).

Demographics	*F*	%
Age		
13-15	140	46.7
16-18	160	53.3
Residence		
Rural	101	33.7
Urban	199	66.3
Gender		
Male	150	50
Female	150	50
Parents		
Together	244	81.3
Separated	56	18.7
Family system		
Nuclear	151	50.5

Joint	149	49.7

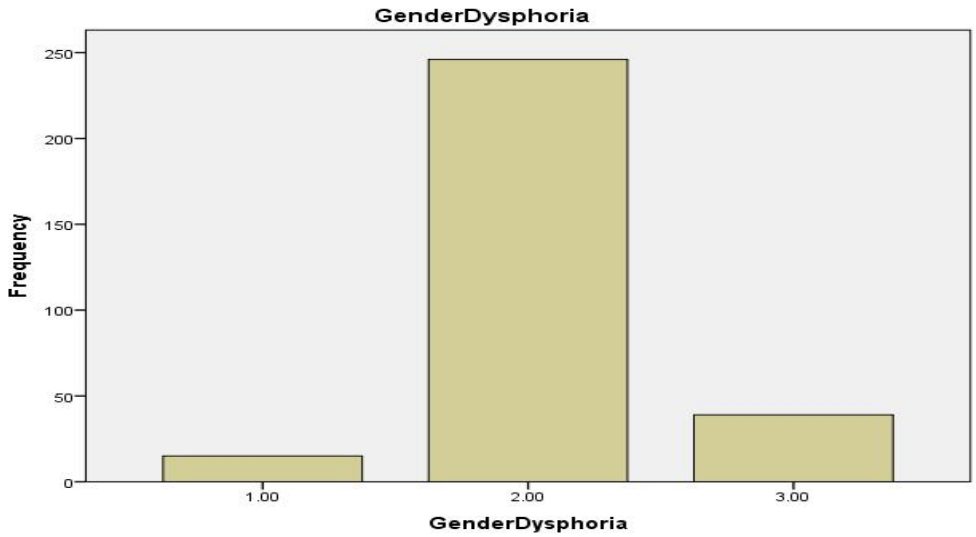
Note. F: frequency, %: percentage.Statistical analysis was done on the basis of information gathered from the sample of 300 (150 Males and 150 Females) from Muzaffarabad AJK. Table shows that participants are aged between 13-15, and 16-18. Residence rural and urban, Gender male and female, Parents living together or separated and Family system nuclear or joint.

Table 02

Prevalence Of Gender Dysphoria Among Total Population. (N=300)

UGDS	Frequency	Percentage
18-30 (low level)	15	5.0
31-60 (moderate level)	246	82.0
61-90 (high level)	39	13.0

Table 2 shows Prevalence of Gender Dysphoria on total population. The results indicate that the population that shows presence of gender dysphoria contains moderate level of gender dysphoria the most (*f* =246, % =82.0), high level of gender dysphoria at second (*f* =39, % =13.0) and lastly low level of gender dysphoria (*f* =15, % = 5.0).



Note. Graph indicates that gender dysphoria exists at moderate level the most. 1 indicate score ranging from 18-30 (low level of gender dysphoria), 2 indicated score from 31-60 (moderate level) and 3 indicates score from 61-90 (high level of gender dysphoria). In above graph 2 indicates the highest frequency which means this level exists the most.

Table 03

Descriptive statistics of the scales used in the study (N=300).

Variables	*k*	*a*	*M*	*SD*	*SK*	Range	
						Act.	Pot.
UGDS	18	0.86	49.29	10.16	0.008	0-25	88-18
K	10	0.81	25.34	24.89	-0.015	0-25	50-3
ISAS	13	0.88	12.72	12.65	-0.033	0-9	25-1

Note. K: no. Of items; SK: skewness; Act: actual; Pot: potential; UGDS: utretch gender dysphoria scale; *k:* Kessler psychological distress scale; ISAS: inventory of statement about self- injury.

Table 03 shows correlation among study variables and findings indicate that gender dysphoria has significant positive correlation with psychological distress and gender dysphoria also has significant positive correlation with self-harm.

Table 04

Correlation Matrix For Study Variables. (N=300).

Variables	1	2	3
UGDS	-	0.402*	0.195*
K		-	0.06*
ISAS			-

Note. All values are significant at *p*= .001.

Table 04 shows the mean, standard deviation, and t-test of age group on study variables. The result indicates significant mean difference in UGDS, *K* and ISAS with age groups.

Table 05

Mean, Standard Deviation And T-Test For Age Group Of The Study Variable (N=300).

	13-15 *n*=140		16-18 *n*= 160				95%*CI*		
variable	M	SD	M	SD	*T*	*P*	LL	UL	Cohens,d
UGDS	52.24	11.22	50.04	10.6	.470*	.577	-2.28	2.68	0.02
K	17.83	8.46	26.49	7.71	.316*	.281	-2.83	.84	0.12
ISAS	12.37	4.28	12.93	4.09	.345*	.753	.753	.38	0.13

Note. M: mean; SD: standard deviation; LL: lower limit; UL: upper limit.

Table 05 shows the mean, standard deviation, and t-test of gender on study variables. The result indicates significant mean difference in UGDS, K and ISAS between male and female.

Table 06

Mean, Standard Deviation And T-Test For Gender Of The Study Variable (N=300).

	female *n*=150		male *n*= 150				95%CI		
variable	*M*	*SD*	*M*	*SD*	*T*	*P*	*LL*	*UL*	Cohens,d
UGDS	49.10	10.92	51.17	10.77	.490*	.822	-0.39	4.53	0.01
K	25.16	8.01	26.89	8.07	.551*	.680	-0.10	3.55	0.21
ISAS	12.83	4.26	12.51	4.12	.304*	.923	-1.27	0.63	0.07

Note. M: mean; SD: standard deviation; LL: lower limit; UL: upper limit.

Table 06 shows the mean, standard deviation, and t-test of nuclear and joint family system on study variables. The result indicates significant mean difference in UGDS, K and ISAS with regard to joint and nuclear family system.

Table 07

Mean, Standard Deviation And T-Test For Family System Of The Study Variable (N=300).

	nuclear *n*=152		joint *n*= 142				95% CI		
variable	*M*	*SD*	*M*	*SD*	*T*	*P*	*LL*	*UL*	Cohens,d
UGDS	50.91	11.01	49.33	10.7	.374	.519	-.89	4.04	0.14
K	26.33	88.42	25.71	7.72	.194	.186	-1.21	2.45	0.07
ISAS	12.55	4.12	12.79	4.27	.139	.285	.285	.72	0.05

Note. M: mean; SD: standard deviation; LL: lower limit; UL: upper limit.

Table 7 shows the mean rank, mean, standard deviation, Mann Whitney and *p* values on study variables. The results indicate significant mean rank differences in UGDS, K and ISAS with respect to parents together or separated.

Table 08

Mean, Standard Deviation And Mann-Whitney Test For Parents Living Together Or Separated N=300.

Variable	*MR*	*M*	*SD*	Mann	*P*

					Whitney	
	Together	Separated				
	n=244	*n*=56				
UGDS	150.28	151.46	50.14	10.87	6778.5	0.93
K	150.80	149.19	26.03	8.07	6758.5	0.90
ISAS	152.85	140.24	12.67	4.19	6257.5	0.32

Note. M: mean; SD: standard deviation; MR: mean rank.

Table 08 shows the mean rank; mean, standard deviation, Mann Whitney and *p* values on study variables. The results indicate significant mean rank differences in UGDS, K and ISAS with parents together or separated.

Table 09

Mean, Standard Deviation And Mann-Whitney Test For Residence (Rural & Urban) N=300.

Variable	*MR*		*M*	*SD*	Mann Whitney	*P*
	Rural	Urban				
	n=101	*n*=199				
UGDS	152.60	149.43	50.14	10.87	9837.0	0.77
K	154.88	148.28	26.03	8.07	9607.5	0.53
ISAS	156.50	147.45	12.67	4.19	9443.5	0.39

Note. M: mean; SD: standard deviation; MR: mean rank.

Table 9 shows the mean, standard deviations, and *F* values for siblings from 1-3, 4-7, and more than 7 on all study variables including Gender dysphoria, Psychological distress, and self-harm. Results indicate that there is a non-significant mean difference in gender dysphoria with {F (2.297) = 1.79. $p > .05$}, psychological distress with {F (2.297) = 0.40. $p > .05$} and with self-harm {F (2.297) = 1.57. $p > .05$}.

Table 10

Linear Regression Analysis Showing The Effect Of Gender Dysphoria (UGDS) On The Prediction Of Psychological Distress Among Students N=300.

Variable	ΔR^2	*B*
UGDS	0.16	.40

In table 10 Linear Regression Analysis is computed with gender dysphoria as a predicted variable and self-harm as the outcome variable. The *ΔR2* value of *.04* indicates that a *4%* variance in dependent variables can be accounted for. The findings indicate that gender dysphoria ($\beta = .20.\ p > 0.1$) has no significant effect on self-harm.

Table 11

Linear regression analysis showing the effect of Gender dysphoria (UGDS) on the prediction of self-harm among students.

Variable	ΔR^2	*B*
UGDS	0.04	0.20

In table 11 Linear Regression Analysis is computed with gender dysphoria as a predicted variable and self-harm as the outcome variable. The *ΔR²* value of *0.11* indicates that a *11%* variance in dependent variables can be accounted for. The findings indicate that gender dysphoria ($\beta = .20.\ p > 0.1$) has an effect on self-harm.

Discussion

The study was conducted to explore the relationship between gender dysphoria, psychological distress and self-harm among adolescents of Azad Kashmir. Gender Dysphoria (GD), as categorized in the DSM-5, is a diagnosis of mental health conditions, referring to one's discontent with their gender assignment; it is also widely employed as a general descriptive term. In recent years, more cases of GD are being diagnosed by child and adolescent services. In the present time, gender dysphoria is seen to be occurring more in teenagers. It not only affects a person physically, but can also cause serious mental health conditions. (Aitken et al., 2015). Nearly four times as many suicides occur within transgender populations compared to the general populace. In comparison to the Dutch general population where only eleven people out of every hundred thousand pass away, research conducted earlier has indicated that there is an elevated likelihood of suicide attempts among both transgender youth.

The first hypothesis was that Gender dysphoria will have a positive impact on psychological distress and self-harm. To assess these three; Utrecht Gender Dysphoria Scale- Gender

Spectrum (UGDS-GS), Kessler Psychological Distress Scale (K10), and Inventory of Statement about self-injury (ISAS) were used. The results from regression analysis indicated that Gender dysphoria has an effect on psychological distress and self-harm. Our research findings support this hypothesis, as the results of the research are consistent with several findings. A study was done by Guerreiro et al., 2017 on trans people. This research was done at a clinic in Cincinnati. According to this research, the symptoms of gender dysphoria appeared in young males aged 12-22 years. Many of these young men suffered from psychological problems and had attempted suicide.

The second hypothesis was that gender dysphoria will have a positive relationship with psychological distress ad self-harm which means if the rate of gender dysphoria increases in an individual, the rate of psychological distress and self-harm will also increase. The individual will have a high risk of being depressed and anxious and more chances of getting into self-injurious behaviors. For this purpose correlation was found out between these three variables. The result suggested that there is a significant positive correlation between these three. Several studies also support this hypothesis. In data comprising 2,117,296 adolescents, adolescents and young adults aged 6 to 20 years old, the researchers found that hospitalized patients with gender dysphoria had a higher prevalence of suicide attempts and depression. Self-harm was also higher in hospitalized young people with gender dysphoria. (Mitchell HK, et al. 2022).

Our third hypothesis posited a positive association between psychological distress and self-harm. Correlational analysis confirmed this hypothesis. Existing research corroborates these findings. Studies have demonstrated a link between psychological distress, particularly depression and anxiety, and self-injurious behaviors, especially among young individuals. Anxiety, when co-occurring with depression, may significantly increase the likelihood of self-harm. Additionally, research suggests that stress can elevate the risk of self-harming behaviors. Among students, self-injury is often employed as a coping mechanism to manage emotional distress, seek relief, regulate emotions, or engage in self-punishment or attention-seeking behaviors. It is important to note that self-harming behaviors can also contribute to or exacerbate psychological distress (Whitlock et al., 2013).

The fourth hypothesis was that there will be a significant difference between males and females with respect to gender dysphoria, psychological distress, and self-harm. Our study supports this hypothesis as males and females are differently prone to gender dysphoria, psychological distress, and self-harm. To find out the difference t-test was applied. The results indicated significant mean differences between gender dysphoria, psychological distress, and self-harm in males and females. Females have a higher UGDS rate. Whereas males have less UGDS rate as compared to females. Females tend to have a high rate of psychological distress, whereas males have less rate of psychological distress. Males have a high rate of self-harm as compared to females. Several pieces of research also show that there is a difference between males and females having these. According to Black's Medical Dictionary, gender dysphoria "occurs in one in 30,000 male births and one in 100,000 female births.". Women are nearly twice as likely as men to fall prey to depression. Depression can occur at any age. On the other hand, men tend to injure themselves more severely than women. These researches show that there is a different rate at which males and females experience psychological distress and self-harm. With context to gender dysphoria, both genders experience it differently. Cultural and social factors are also responsible for this difference. Anyhow this is a controversial topic and in some regions, males are more prone to it and in others, females are more prone to it. (Barretto et al., 2017).

The fifth and last hypothesis was that there will be a high rate of gender dysphoria in adolescents with separated parents. To assess the difference between rates of gender dysphoria in adolescents with separated parents and in adolescents whose parents are living together, the Mann-Whitney test was used. The results indicate significant mean rank differences in UGDS, K, and ISAS with parents together or separated. Adolescents with separated parents have a high rate of gender dysphoria whereas adolescents whose parents are together have less rate of UGD. Several kinds of research also support this hypothesis. Adolescents from divorced families often experience divided parental influences, potentially leading to conflicting messages and role models. During the crucial developmental period of adolescence, parental separation can disrupt an individual's exploration and understanding of their own identity, including

their gender identity. Research suggests a possible link between parental divorce and an increased risk of gender dysphoria in adolescents. (DeGraff et al., 2018).

Limitation and Recommendations:

It is unavoidable that this study has some limitations. Firstly, age and population are limited. The population of this study includes only school and college students, therefore the findings of the study could only be generalized in this particular population. To gain a more comprehensive understanding, research should be conducted on a broader range of individuals, including larger sample sizes and diverse demographic groups. This will help us to understand the effects of gender dysphoria on psychological distress and self-harm more precisely. Another limitation is that the research could be carried out on individuals other than Azad Kashmir.

Implications:

Although gender dysphoria is not yet common among children in Azad Kashmir, still there is a need to identify and check on children who are facing symptoms of gender dysphoria. In Azad Kashmir, most people are unchanging and traditional so they do not spare room for accepting such conditions. It is important to spread awareness and take measures to prevent such conditions. Parents should pay attention to their kids especially at growing age.

There should be mental health awareness programs and also people should be taught about gender dysphoria and its consequences. Mental health education plays an important role. This approach fosters self-awareness in children by helping them understand the consequences of their actions and encourages them to take responsibility for their behavior. To effectively navigate the challenges they encounter, students need to develop emotional regulation skills, understand their personal strengths and weaknesses, and establish a strong sense of their own values. Furthermore, recognizing and addressing the influence of social factors is crucial for effectively managing these challenges.

Conclusion:

On the basis of the results of this study, it is concluded that gender dysphoria is positively related to psychological distress and self-harm. The study found a positive relationship between gender dysphoria and both psychological distress and self-harm. This indicates that individuals experiencing gender dysphoria are more likely to experience psychological distress and engage in self-harming behaviors. It was also found that gender dysphoria is prevalent in moderate level the most and has a positive impact on both psychological distress and self-harm. Psychological distress is positively correlated with self-harm. The study found significant differences between males and females in terms of gender dysphoria, psychological distress, and self-harm. Females exhibited higher rates of gender dysphoria and psychological distress, while males had a higher rate of self-harm. These gender differences highlight the importance of considering gender-specific factors when examining these phenomena. It was also revealed that there was a higher rate of gender dysphoria in children with separated parents as compared to those whose parents were living together. This suggests that parental separation may contribute to difficulties in exploring and developing gender identity among children, leading to a higher prevalence of gender dysphoria.

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