

Prevalence, Causes and Most Common Method of Deliberate Self-Harm Used by Adolescent of Pakistan

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Abstract

This study was conducted in Lahore, Pakistan to explore the overall and gender-wise prevalence of Deliberate Self-Harm in adolescents. Identification of most common reason and method practiced for DSH by adolescents were also the objective of study. The sample size for the study was calculated with G-power factor formula and as per the results generated from the software, a sample of (N=200) hundred males and hundred females was analyzed. ISAS inventory was used as research tool in this study. Cross-sectional survey was conducted and it was found that 62% adolescents indulged into the practice of DSH. Furthermore biting was the most common method and affect regulation was identified as most common reason due to which adolescents practiced DSH. It was also exhibited by data analysis that females were twice more active participant of DSH as compared to males.

Keywords: adolescent, deliberate self-harm, pain, affect regulation, biting

1. Introduction

Adolescence is the age of raging emotions, one in which an individual indulges into a lot of activities both positive and negative. Among the fastest growing concerns regarding adolescents around the world are the patterns of activities they delve into when depressed. Deliberate Self Harm (DSH) is an act of masochism which is practiced by adolescents to release their pent up frustrations (Madge et al., 2008). Though Deliberate self-harm is a new term for a few but it's an act that has been practiced since long (Favazza, 1998) presented the definition of deliberate self-harm that it is deliberate act in which the individual knowingly harms his body without any suicidal intent. The practice may result in severe injury and often a times tissue damage. Deliberate self-harm is a way to express negative emotions. Deliberate self-harm differs in intensity from person to person and the nature is physical. Nature of deliberate self-harm is always intentional, it's non-suicidal, neither sexual nor decorative (Sutton, 2007). A few acts may look self-harming in nature but are not included in the breath of DSH such as severe dieting or eating disorders as in these cases the individual is not harming himself intentionally for extraction of physical pain.

Deliberate self-harm, is an urge to inflict physical pain on one's body to cope with emotional distress or to regain the emotional balance or normal state of mind. It is usually considered to be the coping mechanism for emotional distress (Fox & Hawton, 2004). A wide array of activities fall in the domain of DSH such as burning, banging, hitting body parts, scratching, dermatillomania (interfering with wound healing), cutting one's skin, pulling hair (trichotillomania) and ingestion of toxic substances or objects. (Klonsky, 2007).

Experience of negative emotions in childhood sometimes serves as the potential risk factor such as, childhood abuse physical or sexual, negligence, parental separation, loss of a loved one, insecurity of losing a caregiver and other likely emotional losses (Gratz, 2003). Childhood depression can be a vital reason (Haavisto et al., 2005). Those who start practicing DSH often find an urge inside them to practice it again whenever they feel gloomy or entangled in a negative circle of emotions. Nixon, Cloutier, & Aggarwal(2002) Self-harmers have urges to harm themselves from time to time as it is addictive in nature.

In terms of prevalence the females are involved in act of deliberate self-harm more than males (Madge et al., 2008). In Asian culture women are not allowed to express themselves and have to ingest a lot of their frustrations and tensions for the sake on honor of their family. Across Asia and in Pakistan too women can't have the liberty of actually attaining the rights they are entitled to and they are bound to keep most of their problems to themselves, silently which keeps gnawing them from the inside. While data collection the researcher observed that most of the deliberate self-harmers had someone in their social circle practicing DSH besides them. Mostly the other active participant was a friend, a family member, sibling or a cousin; suggesting that DSH can be contagious in nature. (Nock & Prinstein, 2005)

DSH shares a novel yet promising relationship with suicide. As has been established that DSH is not done for suicidal purposes yet it is declared by research to be the most valid predictor of suicide. Those who indulge in DSH are more likely to practice suicide attempts as well when compared with those who don't practice DSH at first place (Zakiullah et al., 2008). Initially the

intent of harmer is just tissue damage and the abstraction of physical pain which may serve some purposes but gradually the intensity of action starts increasing and then he may one day when faced with a tension or grievance dare for a suicide attempt.

Issues such as DSH are neglected in Pakistan due to stigma attached with these acts. Almost no significant work is available which explains the prevalence, factors and root causes which lead Pakistani adolescent to such acts. While the researcher found out that a considerable percentage of Pakistani adolescents delve into the practice of DSH. Increasing frustration and unhealthy psychological state of these adolescents is a potential threat for future of Pakistan. This study will not only explain the prevalence but will also help to identify the root causes behind, which lead adolescent to such practices and also the methods employed by them to carry out DSH. Furthermore this study will prove to be a contribution in the process of eradicating practices of DSH from Pakistani adolescences. This research will identify the reasons why adolescence indulges into DSH which will further help in finding cures and understanding of the individuals who practice it.

1.1 Objectives

- To find out the prevalence of deliberate self-harm among Pakistani adolescents.
- To explore the most common method of deliberate self-harm among adolescents.
- To determine most common cause of DSH in adolescent

1.2 Hypothesis

H1: there is difference between DSH behavior in males and females

2. Literature Review

Deliberate Self Harm is defined as physical harm which a person with the full knowledge of the severity of his action and/or danger associated with acts of violence inflict upon oneself and often a times is accompanied with tissue damage. (Favazza, 1998).

Carroll et al. (2016) conducted a study on a sample of 43,595 DSH patients and reported that between 2007 and 2012 the approximate range fell between 10-74%. Similarly (Haider & Haider, 2001) studied a sample of 100 patients from emergency ward of Jinnah hospital attached to Allam Iqbal medical college. The result of their finding indicated that most of the active participants were young and females were observed to practice DSH more than males. Bjärehed, Pettersson, Wångby-Lundh, & Lundh, (2013) collected information via survey method of a sample of 1052 adolescents, out of which 66% were active participants. Likewise Muehlenkamp, Claes, Havertape, & Plener (2012) reported a 16.1% prevalence of DSH. (Gratz, 2003) conducted a study on Italian adolescents to find the prevalence of deliberate self-harm behavior among them. He studied a sample of 234 and concluded a 42% prevalence of DSH. Furthermore (Kirchner, Ferrer, Forn, & Zanini, 2011) carried out a survey study on 1,171 adolescents and reported 11.4% prevalence of deliberate self-harm. (Patton et al., 2007) carried out a survey in 121 schools of Germany and reported females to practice DSH twice more than males.

Yates, Tracy, & Luthar (2008) conducted research within a high socioeconomic area among a large sample of youth. Presence of deliberate Self-harm was greatly related to perceived parental criticism and a sense of alienation. Haider & Haider (2001) also found prevalence of self-harm was greater in graduates approximately 20% and those with lower educational status were practicing 8%. The dominating class was lower social class with 60% prevalence. Bifulco et al. (2014) and Hankin & Abela (2011) research's findings gave a new dimension to look into for causes by suggesting high influences of family background of deliberate self-harmers such as; single parent family, negligence by family, mishandling or other family instabilities. Hankin & Abela (2011) studied youth to look into the prevalence of deliberate self-harm and risk factors in early adolescents that can predict deliberately self-harm behavior in adolescent years by studying a sample of 103 he concluded that risk factors include temperament, cognitive and interpersonal vulnerabilities, stressors; youths' and mothers' depression. DeHart, Smith, & Kaminski (2009) worked for 12 months on contagion of deliberate self-harm among adolescent. In terms of small-group it was revealed to serve the function of feeling of togetherness. (Nock, 2009) suggested that child abuse can be a predictor of deliberate self-harm and DSH helps them to release their emotional pressure or serves as affect regulation. Deliberate self-harm provides the self-harmer a weird sense of relief that yet (Klonsky & Muehlenkamp, 2007). They also concluded that people use deliberate self-harm as affect regulator to cope with negative emotions. LUNDH, Karim, & Quilisch (2007) low self-esteem and self-derogation are a commonly observed factor among deliberate self-harmers. Campbell, Keegan, Cybulska, & Forster (2007) conducted a study on victims of sexual assault, with sample consist of 240 clients, they showed the prevalence of deliberate self-harm 26%, accompanied with few other cognitive disabilities. Klonsky and Muehlenkamp's in (2007) discovered a new aspect about deliberate self-harmers, they suggested that self-harmers harm themselves for the sensation of excitement, deliberate self-harmer consider these acts exactly like "*excitement or exhilaration in a manner similar to skydiving or bungee jumping*". Their research also showed that the act of deliberate self-harm can also be the indication of one's autonomy. Whitlock, Powers, & Eckenrode (2006) focused on the contagious nature of deliberate self-harm. The reason behind its contagion according to them is the feeling of belongingness one gets when they bond through it with others as it promotes the sense of unity. Social media is also playing a vital role in enhancing the effect of its contagious nature by spreading the idea more rapidly for adolescents to follow it. (Dorko) Kimberly Matas quoted Tucson psychologist Bernard Engelhard in the Arizona Daily Star (2006), "*It became almost a substitute for smoking among teens. It's almost chic.*" Gratz & Gunderson (2006) highlighted that deliberate self-harmers adopt this behavior as the way of an escape from unwanted feelings or emotions. People channelize their emotional pain into physical one while a few people use it as emotion. 46.5% of NSSI participants reported frequent self-biting (Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007).

An array of means and methods have been identified by researchers over the period of years through which people carry out DSH acts. Such as cutting, skin carving, hair pulling, severe scratching, biting and interfering with wound healing etc. (Haider & Haider, 2001) reported

substance abuse as the most used method of DSH. Gandy (2016) reported biting as the most common method of DSH.

Brunner et al. (2007) researched a sample of 5759 ninth grade students, 10.9% students of 9th grade reported occasional forms of Deliberate Self-Harm and 4% of the students reported repetitive practice of Deliberate Self-Harm.

3. Method

This was a Cross sectional survey research with the goal to find the prevalence of deliberate self-harm among adolescent in Pakistan and the causes of performing the act of deliberate self-harm among them. The universe for this research were adolescents both males and females, ranging in age from (15 to 19). The sampling technique used for this study was Non-probability sampling owing to unavailability of registered deliberate self harmers and also because of the difficulty that one might face in the times when follow up is required. The size of sample for study was (N=200) adolescents, 100 males and 100 females. The instrument used in this study was an inventory (ISAS) “Inventory Statement About Self-Injury” after adapting it for indigenous settings. The questionnaire consisted of 2 sections; first section was about demographics and prevalence of deliberate self-harm and the second section was about causes of deliberate self-harm among adolescents. There were 7 questions added to the inventory on the bases of review of literature to check the insight of deliberate self-harm among adolescents in Pakistani culture. After adaptation of questionnaire the tool comprised of 48 items. Respondent was free to select more than one option in questions as per their practices. A total of 200 questionnaires were distributed in adolescents 100 males and 100 females. Questionnaire was distributed among the adolescents in Lahore. A response rate of 100% was recorded. The tool was based on 3-point likert scale from 1-never to 3-always. Six scoring categories for every item of (ISAS), ranged between 0-6. Every factor consisted of 3 statements and every statement carried three options (never=0, sometimes=1, and always=2). In order to calculate the rating of any factor the response of every statement was summed up and then analyzed on SPSS. The tool indicated scoring values; (0-1 = normal), (2 = at risk), (3 = mild), (4 = moderate), (5=severe), and (6 = profound). Due to which values of factors affecting were established. The factors with highest rate or profound factors were considered to be the most prevailing cause of deliberate self-harm. Pilot study was conducted on 40 respondents, twenty males and 20 females to ensure that the method of data collection was appropriate, prior to a full scale data gathering. A reliability value of .89 was calculated with SPSS after pilot study. The research commenced from September 2015. Pilot-study was conducted in October 2015 and final data collection was done in January 2016. Data was collected after giving a small informational note on the topic.

Pilot-study (October 2015)  Data collection (January 2016)

4. Results

Deliberate self-harm is wide spread yet a hidden problem of present time (Hawton, 2008). The research was designed to find out prevalence of deliberate self-harm among adolescents, to

compare the prevalence in both the genders and to find the most common causes and method of deliberate self-harm among adolescents. Following are the results of the study:

Table 4. Prevalence of deliberate self-harm among adolescence

Variables	Levels	f	%
Gender	Male	100	50
	Female	100	50
Prevalence	Yes	124	62
	No	76	38

From the sample of 200 adolescents (both gender equally) the prevalence of deliberate self-harm was 124 (62%) which showed that there is a high rate of adolescents who perform any of the acts of deliberate self-harm at least once in their life time.

Prevalence of deliberate self-harm

- Deliberate self-harm population
- Non-Deliberate self-harm population



Figure 1. Prevalence of deliberate self-harm among adolescence

Table 2. Prevalence of deliberate self-harm among adolescents with respect to their gender (Male & Female)

	Male		Female		Total		χ^2	<i>p</i>
	f	%	f	%	f	%		
Yes	43	43.0	81	81.0	124	62.0	30.645	<.001
No	57	57.0	19	19.0	76	38.0		
Total	100	100.0	100	100.0	200	100.0		

According to the chi-square test that the prevalence of deliberate self-harm among adolescents males was 43.0% and females was 81.0%, which shows that there was statistically significant difference in male and female adolescents prevalence $p < .001$. There was a vast difference in behavior of males from females in deliberate self-harm.

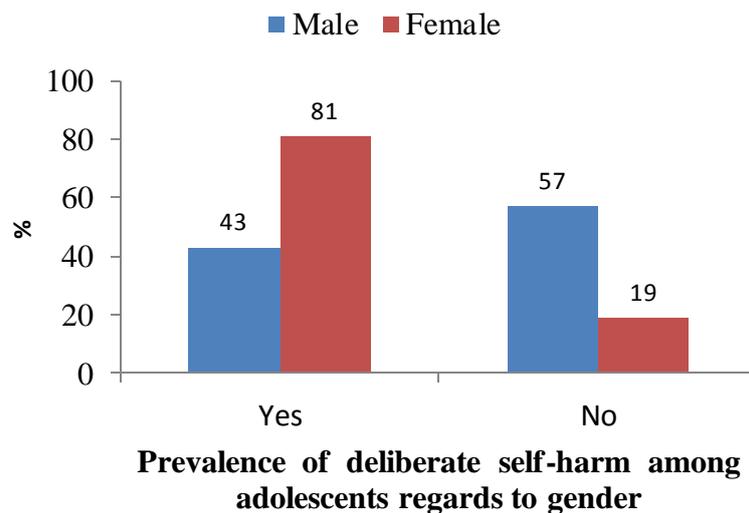


Figure 2. Prevalence of deliberate self-harm among adolescents w.r.t. to their gender (Male & Female)

Table 3. Information regarding the most commonly used methods of deliberate self-harm (multiple responses) among adolescents

Methods of deliberate self-harm	N	%	Percent of Cases
Cutting	17	5.9	13.7
Biting	53	18.5	42.7
Burning	6	2.1	4.8
Carving	5	1.7	4.0
Pinching	16	5.6	12.9
Pulling hair	32	11.1	25.8
Severe scratching	28	9.8	22.6
Banging or hitting self	45	15.7	36.3
Interfering with wound healing (e.g., picking scabs)	25	8.7	20.2
Rubbing skin against rough surface	15	5.2	12.1
Sticking self with needles	28	9.8	22.6
Swallowing dangerous substances	17	5.9	13.7
Total	287	100.0	231.5

A wide range of actions are considered as deliberate self-harm, 12 of them are selected on the basis of extensive review of literature to represent any act of deliberate self-harm, listed (table.4.3& figure4.3) The most common method adopted by adolescents is biting (18.5%), followed by banging or hitting self (15.7%), then pulling hair was observed at (11.1%), severe scratching and sticking self with needles both were at (9.8%). The prevalence of interference with wound healing was (8.7%), cutting and swallowing dangerous substances was observed to occur among (5.9%) , pinching was observed (5.6%) among adolescents, rubbing skin against rough surface was observed to be at (5.2%), burning and carving were least used methods at (2.1% and 4.0%) respectively.

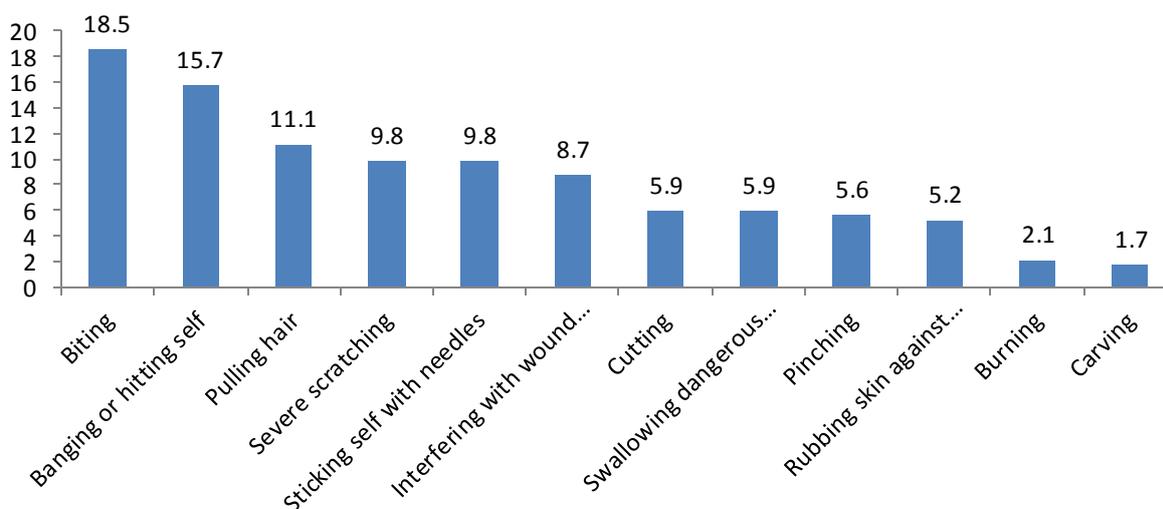


Figure 3. Methods of deliberate self-harm (multiple responses)

Table 4. Information relating the most commonly used methods of deliberate self-harm (multiple responses) among adolescents with respect to their gender (Male & Female)

Methods of deliberate self-harm	Gender				Total
	male		female		
	n	%	n	%	
Cutting	4	9.3	13	16.0	17
Biting	19	44.2	34	42.0	53
Burning	1	2.3	5	6.2	6
Carving	2	4.7	3	3.7	5
Pinching	6	14.0	10	12.3	16
Pulling hair	7	16.3	25	30.9	32
Severe scratching	10	23.3	18	22.2	28
Banging or hitting self	14	32.6	31	38.3	45
Interfering with wound healing (e.g., picking scabs)	6	14.0	19	23.5	25
Rubbing skin against rough surface	7	16.3	8	9.9	15
Sticking self with needles	6	14.0	22	27.2	28
Swallowing dangerous substances	3	7.0	14	17.3	17
Total		43		81	124

The most commonly used method of deliberate self-harm in male (44.2%) and in females (44.2%) was biting. The second most commonly used method of deliberate self-harm was banging or hitting self, (32.6%) male and (38.3%) females. The third commonly used method of deliberate self-harm among females was pulling hair (30.9%), whereas among males Severe Scratching was third most adopted method with (23.3%). On fourth rank the method of deliberate self-harm among females was sticking self with needles (27.2%), and among males it was pulling hair and Rubbing Skin against Rough Surface with (16.3%). Fifth comes Interfering with Wound Healing e.g., picking scabs (23.5%) among females and among males was pinching, Interfering with Wound Healing e.g., picking scabs, and sticking self with needles was (14.0%). Sixth commonly used method of deliberate self-harm among females was severe scratching (22.2%), and among males it was cutting with percentage of (9.3%). Seventh common method of deliberate self-harm was swallowing dangerous substances with percentage of 17.3% females, and (7.0%) males. Eighth most commonly used method of deliberate self-harm was cutting (16.0%) among females and carving among males with percentage of (4.7%). Ninth most commonly used method of deliberate self-harm among females was pinching with percentage of (12.3%) and burning among males with percentage of (2.3%). method of deliberate self-harm used commonly on tenth rank among females was (9.9%) rubbing skin against rough surface, then burning (6.2%) and carving (3.7%) as shown in (table 4.4 & figure 4.4)

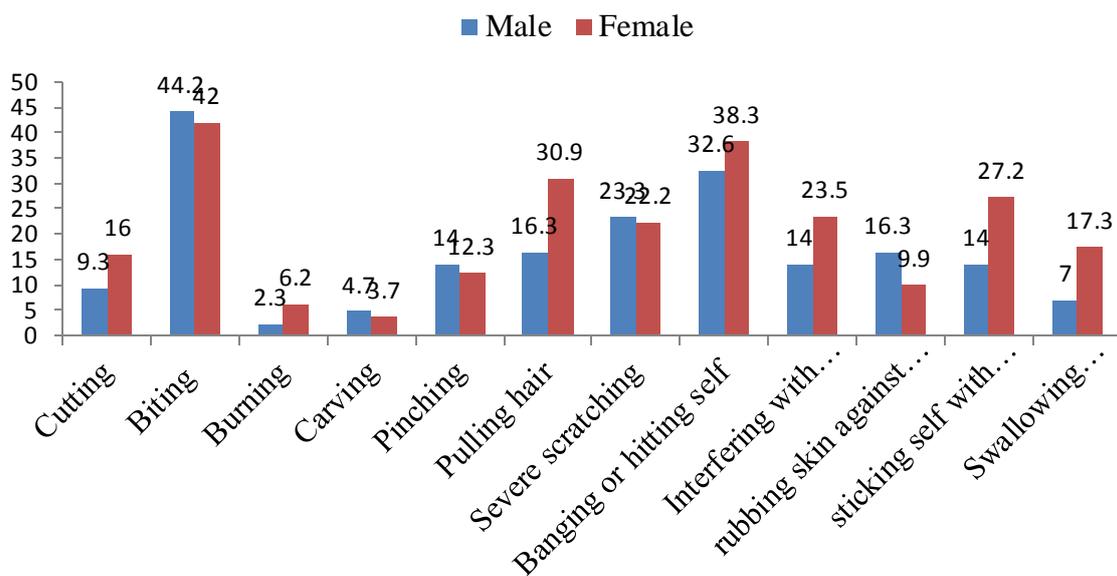


Figure 4. Most commonly used methods of deliberate self-harm (multiple responses) gender wise

Table 5. Information regarding insight of their behavior

Sr#	statements	Never		sometimes		Always		Mean	SD
		f	%	f	%	f	%		
1	Are you alone when you harm yourself	27	21.8	57	46.0	40	32.3	1.10	.731
2	Do you feel pain while harming yourself	35	28.2	61	49.2	28	22.6	.94	.713
3	Do you feel better while performing any act of deliberate self-harm	43	34.7	65	52.4	16	12.9	.78	.657
4	Do you feel better after performing any act of deliberate self-harm	63	50.8	40	32.3	21	16.9	.66	.753
5	Did you ever tried to resist the urge to harm yourself	43	34.7	59	47.6	22	17.7	.83	.707
6	Did you ever succeeded in resisting the urge to harm yourself	60	48.4	47	37.9	17	13.7	.65	.710
7	Is it easy to resist the urge of deliberate self-harm	65	52.4	46	37.1	13	10.5	.58	.676

According to the statistical analysis it can be concluded that mostly people prefer harming themselves when they are alone (M=1.10) as shown in (table 4.5& figure 4.5), people reporting that they sometimes feels pain (M=.94). The data proposed that participant who sometimes feel better while performing any act of deliberate self-harm had (M=.78). Adolescents who feel better after performing any act of deliberate self-harm (M=.66). The data indicated that adolescents sometimes tried to resist the urge to harm with a (M=.83). Adolescents who showed that they sometimes managed to succeed in resisting the urge to harm (M=.65). Adolescents who reported that sometimes it is not easy to resist the urge of deliberate self-harm (M=.58).

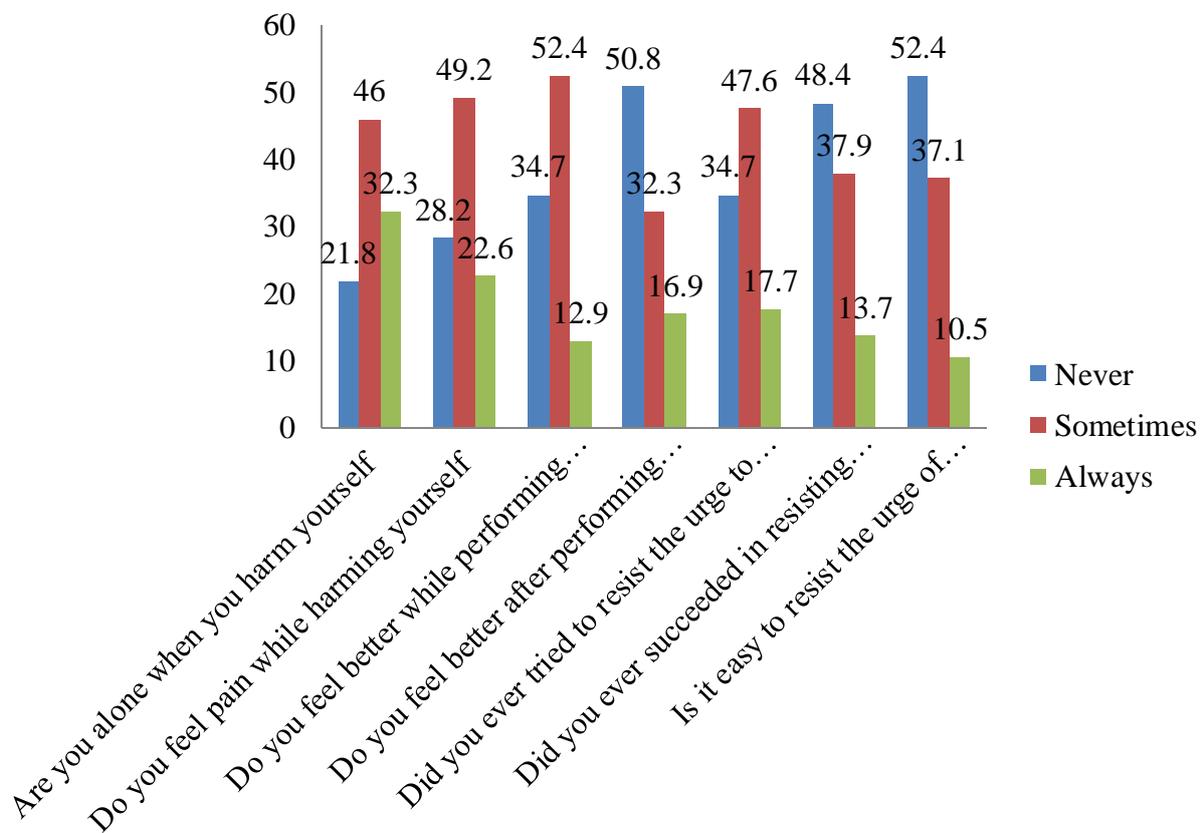


Figure 5. Information regarding insight of their behavior

Table 6. Analysis of affect regulation as a cause of deliberate self-harm

Sr#	Affect Regulation Statements	Never		Sometimes		Always		Mean	SD
		F	%	F	%	F	%		
1	I am calming myself down	42	33.9	53	42.7	29	23.4	.90	.75
2	I am releasing emotional pressure that has built up inside of me	22	17.7	54	43.5	48	38.7	1.21	.72
3	I am reducing anxiety, frustration, anger, or other overwhelming emotions	29	23.4	42	33.9	53	42.7	1.19	.79
	Average							1.1	0.75

Affect regulation was the most common factor (with a total average of 1.1) which led the adolescents toward deliberate self-harm, majority of the participants claimed that they harm themselves because “*I am releasing emotional pressure that has built up inside of me*” with (M=1.21;SD=.72). Many adolescents deliberately harm themselves with a (M=1.19;SD=.79) because “*I am reducing anxiety, frustration, anger, or other overwhelming emotions*”. “*I am calming myself down*” was the statement with (M=.90;SD=.75). As depicted in (table 4.6.1)

Table 7. Analysis of interpersonal boundaries as a cause of deliberate self-harm

	Interpersonal Boundaries Statements	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
4	I am creating a boundary between myself and other	55	44.4	45	36.3	24	19.4	.75	.76
5	I am Demonstrating that I am separate from other people	54	43.5	47	37.9	23	18.5	.75	.75
6	I am establishing a barrier between myself and other	56	45.2	47	37.9	21	16.9	.72	.74
	Average							0.74	0.75

Interpersonal boundaries, one of the factors causing deliberate self-harm among adolescents had prime contribution (with a total average of .74). Adolescents who said that they harm themselves because they are creating a boundary between themselves and others (M=.7; SD=.76). Respondents who reported that they were separating themselves from the others had

($M=.75;SD=.75$) and the one establishing a barrier between them and others were ($M=.72;SD=.74$) as depicted in (table4.6.2)

Table 7. Analysis of self-punishment as a cause of deliberate self-harm

Sr#	Self-Punishment	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
	Statements								
7	I am punishing myself	48	38.7	55	44.4	21	16.9	.78	.72
8	I am expressing anger toward myself for being worthless or stupid	47	37.9	57	28.5	20	16.1	.78	.70
9	I am reacting to feeling unhappy with myself or disgusted with myself	44	35.5	55	44.4	25	20.2	.85	.73
	Average							0.8	0.72

Self-punishment was the second most leading cause of deliberate self-harm among adolescents (with the total average of 0.8). Participants who reported that they Sometimes harm themselves because “*I am reacting to feeling unhappy with myself or disgusted with myself*” had ($M=.85;SD=.73$). A ($M=.78;SD=.70$) was calculated of respondents reporting “*I am expressing anger toward myself for being worthless or stupid*”. As shown in (table4.6.3) “*I am punishing myself*” was reported by ($M=.78;SD=.72$)

Table 8. Analysis of self-care as a cause of deliberate self-harm

Sr#	Self-Care	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
	Statements								
10	I am giving myself a way to care for myself (by attending to the wound)	64	51.6	34	27.4	26	21.0	.69	.80
11	I am creating a physical injury that is easier to care for than my emotional	80	64.5	30	24.2	14	11.3	.47	.69
12	Allowing myself to focus on treating the injury, which can be gratifying or satisfying	73	58.9	42	33.9	9	7.3	.48	.63
	Average							0.55	0.71

According to the data self-care is the least triggering factor of deliberate self-harm, 80 participants said that they never harm themselves because “*I am creating a physical injury that is easier to care for than my emotional* “ and 73 said that they never harmed themselves because “*Allowing myself to focus on treating the injury, which can be gratifying or satisfying*”

“and 64 participants said they never harmed themselves because “*I am giving myself a way to care for myself (by attending to the wound)*” the rest said they sometimes or always hurt themselves for self-care.

Table 9. Analysis of anti-dissociation/feeling generation as a cause of deliberate self-harm

Sr#	Anti-Dissociation/feeling generation	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
13	I am causing pain so I will stop feeling numb	51	41.1	59	47.6	14	11.3	.70	.66
14	I am trying to feel something (as opposed to nothing) even if it is physical pain	47	37.9	64	52.0	13	10.5	.73	.64
15	I am making sure I am still alive when I don't feel real	54	43.5	53	42.7	17	13.7	.70	.70
	Average							0.79	0.79

Deliberate self-harm is an act caused by few leading factor in which anti-dissociation was an important factor (with an average of .79) as depicted in (table4.6.5). “*I am causing pain so I will stop feeling numb*” had a (M=.70;SD=.66). “ *I am trying to feel something, even if it is physical pain*” was calculated to have (M=.73;SD=.64) and “*I am making sure I am still alive when I don't feel real*” was reported with (M=.70;SD=.70)

Table 10. Analysis of anti-suicide as a cause of deliberate self-harm

Sr#	Anti-Suicide	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
16	I am avoiding the impulse to attempt suicide	50	40.3	40	32.3	34	27.4	.87	.82
17	I am responding to suicidal thoughts without actually attempting suicide	59	47.6	38	30.6	27	21.8	.74	.80
18	I am putting a stop to suicidal thoughts	60	48.8	31	25.2	32	26.0	.77	.84
	Average							0.79	0.82

Anti-suicide was reported by an average of .79. (M=.87;SD.82) participants said they were always avoiding the impulse to attempt suicide when they self-harm. (M=.74;SD.80) reported they respond to suicidal thoughts by actually attempting it. (M=.77;SD.84) said they self-harm to put a stop to suicidal thoughts as shown in (table 4.6.6)

Table 11. Analysis of sensation seeking as a cause of deliberate self-harm

Sr#	Sensation seeking	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
19	I am doing something to generate excitement or exhilaration	43	34.7	54	27.0	27	13.5	.87	.74
20	I am entertaining myself or others by doing something extreme	56	45.2	40	32.3	28	22.6	.77	.79
21	I am pushing my limits in a manner akin to skydiving or other extreme activities	64	51.6	41	33.1	19	15.3	.64	.74
	Average							0.76	0.76

For many adolescents sensation seeking is the cause that lead them to deliberate self-harm (with an average of .76). (M=.87;SD=.74) participants its always done to generate excitement and exhilaration. (M=.77;SD=.79) do it to entertain themselves or others by doing something extreme. As depicted in (table4.6.7) (M=.64;SD=.74) had reported it as pushing my limits in a manner akin to skydiving or other extreme activities.

Table12. Analysis of peer-bonding as a cause of deliberate self-harm

Sr#	Peer-bonding	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
22	I am bonding with peers	61	49.2	44	35.5	19	15.3	.66	.73
23	I am fitting others	57	46.0	45	36.3	22	17.7	.72	.75
24	I am creating a sign of friendship or kinship with friends or loved ones	52	41.9	41	33.1	31	25.0	.83	.80
	Average							0.74	0.76

Peer bonding is the most dangerous cause (with an average of .74) which lead the adolescents toward self-harm. “*I am bonding with peers*” was reported by (M=.66;SD=.73) shown in (table4.6.8) “*I am fitting others*” had a (M=.72;SD.75) and “*I am creating a sign of friendship*” was calculated to have (M=.83;SD=.80)

Table 13. Analysis of interpersonal influence as a cause of deliberate self-harm

Sr#	Interpersonal influence Statements	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
25	I am letting others know the extent of my emotional pain	56	45.2	52	41.9	16	12.9	.68	.69
26	I am seeking care or help from others	51	41.1	51	41.1	22	17.7	.77	.73
27	I am keeping a loved one from leaving or abandoning me	58	46.8	43	34.7	23	18.5	.72	.76
Average								0.72	0.73

Interpersonal influence was one of the important factor that leads adolescents toward deliberate self-harm (with an average .72). (M=.68;SD=.69) “*I am letting others know the extent of my emotional pain*” as the reason for them to self-harm. (M=.77;SD=.73) participants claimed that they are seeking help by harming themselves. (M=.72;SD=.76) participants said they are keeping the loved one from abandoning them when they harm themselves.

Table 14. Analysis of toughness as a cause of deliberate self-harm

Sr#	Toughness Statements	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
28	I am seeking if I can stand the pain	51	41.1	56	45.2	17	13.7	.73	.69
29	I am demonstrating I am tough or strong	57	46.0	41	33.1	26	21.0	.75	.78
30	I am proving I can take the physical pain	59	47.6	43	34.7	22	17.7	.70	.75
Average								0.73	0.74

Deliberate self-harm is one of the way adolescents use to test their toughness (with an average of .73). (M=.73;SD=.69) participants claimed they self-harm to seek if they can stand pain. (M=.75;SD=.78) said they deliberately self-harm to show off their toughness to others. They only self-harm to prove that they are not weak had a (M=.70;SD=.75).

Table 15. Analysis of marking distress as a cause of deliberate self-harm

Sr#	Marking distress	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
	Statements								
31	I am creating a physical sign that I feel awful	57	46.0	54	43.5	13	10.5	.65	.66
32	I am proving to myself that my emotional pain is real	44	35.5	48	38.7	32	25.8	.90	.78
33	I am signifying the emotional distress I'm experiencing	56	45.2	41	33.1	27	21.8	.77	.79
	Average							0.77	0.74

Marking distress was reported with an average of .77 as a cause of deliberate self harm. “*I am creating a physical sign that I feel awful*” had (M=.65;SD=.66). “*I am proving to myself that my emotional pain is real*” was the reason reported by (M=.90;SD=.78) “*I am signifying the emotional distress I’m experiencing*” as a cause always with (M=.77;SD=.79)

Table 16. Analysis of revenge as a cause of deliberate self-harm

Sr#	Revenge	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
	Statements								
34	I am getting back at someone	62	50.0	46	37.1	16	12.9	.63	.70
35	I am getting revenge against others	71	57.3	41	33.1	12	9.7	.52	.67
36	I am trying to hurt someone close to me	74	59.7	39	31.5	11	8.9	.49	.66
	Average							0.55	0.68

Revenge as a cause of deliberate self-harm was reported with an average of .55.(M=.63;SD=.70) agreed that they harm themselves because they are getting back at someone. (M=.52;SD=.67) claimed they self-harm to get revenge against others. (M=.49;SD=.66) reported as shown in (table4.6.12) they self-harm to hurt someone close to me.

Table 17. Analysis of autonomy cause of deliberate self-harm

Sr#	Autonomy Statements	Never		Sometimes		Always		Mean	SD
		f	%	f	%	f	%		
37	I am ensuring that I am self-sufficient	59	47.6	49	39.5	16	12.9	.65	.70
38	I am demonstrating that I do not need to rely on others for help	57	46.0	40	32.3	27	13.5	.76	.79
39	I am establishing that I am autonomous/independent	49	39.5	42	33.9	33	26.6	.87	.81
Average								0.76	0.77

Total average of autonomy was reported as 0.76 as a cause. The statement that was highly opted by adolescents was (M=0.87;SD=.81) that “*I am establishment that I am autonomous/independent*”. Then at a (M=0.76;SD=.79) was “*I am demonstrating that I do not need to rely on others for help*” and at (M=0.65;SD=.70) was “*I am ensuring that I am self-sufficient*”.

Table 18. Analysis of most prevailing causes of deliberate self-harm

Factors	Mean	SD
Affect regulation	1.1	0.75
Interpersonal boundaries	0.74	0.75
Self-Punishment	0.8	0.72
Self-Care	0.55	0.71
Anti-dissociation	0.79	0.79
Anti-suicide	0.79	0.82
Sensation seeking	0.76	0.76
Peer-bonding	0.74	0.76
Interpersonal influence	0.72	0.73
Toughness	0.73	0.74
Marking distress	0.77	0.74
Revenge	0.55	0.68
Autonomy	0.76	0.77

Highest (Mean=1.1) was of affect regulation which indicated the most promising cause of deliberate self-harm among adolescents as depicted in (table4.7). Second was self-punishment at a (Mean=0.8). The lowest one was self-care and revenge both with (Mean=0.55). The rest were at (anti-dissociation: Mean=.79), (anti-suicide: Mean=.77), (marking distress: Mean=0.76), (autonomy and sensation seeking both with Mean=.74), (interpersonal boundaries and peer boundaries both have a: Mean=.74) (toughness: Mean=.73) and (Interpersonal influence: Mean=.72)

Table 19. Analysis of intensity of causes in which the deliberate self-harm prevails

Factors	Normal	At risk	Mild	Moderate	Severe	Profound
Affect regulation	23	16	25	24	22	14
Interpersonal boundaries	49	27	14	18	8	8
Self-Punishment	41	28	24	12	11	8
Self-Care	65	23	19	11	5	1
Anti-dissociation	47	35	19	16	4	3
Anti-suicide	42	25	16	25	12	4
Sensation seeking	45	29	21	11	10	8
Peer-bonding	48	24	20	16	9	7
Interpersonal influence	48	30	21	13	7	5
Toughness	49	26	25	8	8	8
Marking distress	48	23	18	17	14	4
Revenge	62	24	22	10	4	2
Autonomy	50	22	18	12	14	8

Affect regulation (14) was the most proceeding factor of deliberate self-harm among adolescents as depicted in (table4.8), followed up by autonomy (8) and self-punishment (8). The least deliberate self-harm triggering factors were anti-dissociation (3), revenge (2), self-care (1). The rest fell in between such as interpersonal boundaries (8), Sensation-seeking (8), Toughness(8), Peer-bonding (7), Interpersonal influence (5), Marking distress (4)and Anti-suicide (4) as shown in (Table 19 & Figure 6)

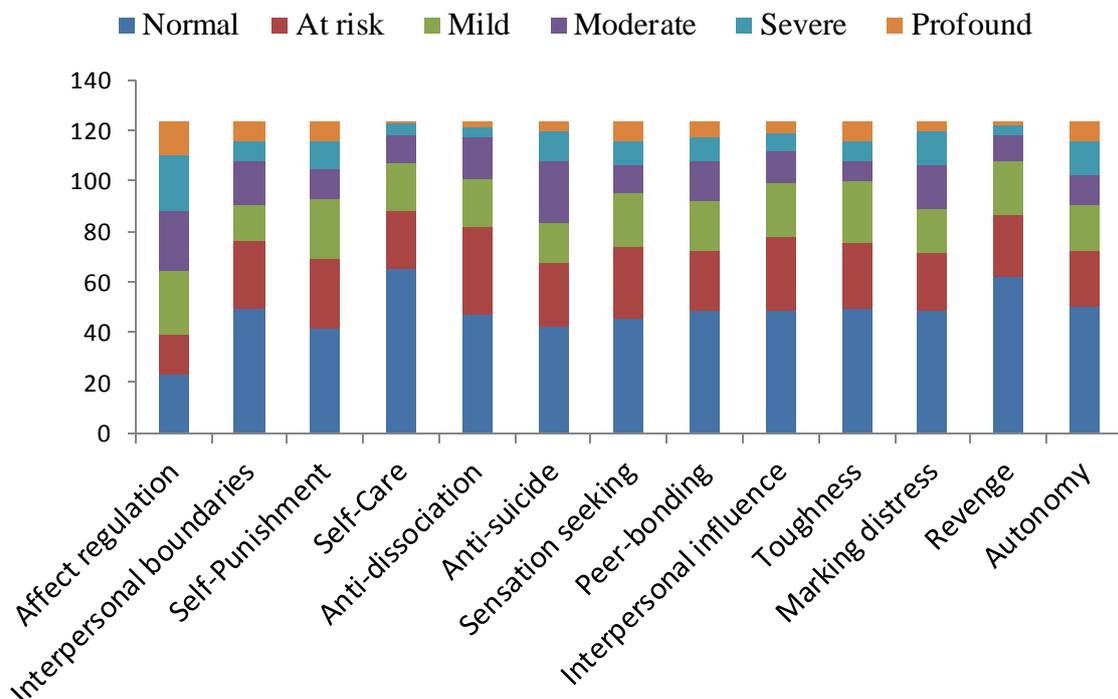


Figure 6. Intensity scale for causes of deliberate self-harm

5. Results & Findings

- The demographical characteristics of this research were analyzed in terms of gender of participants, in which males were 50% and 50% females (Table 1).
- The overall prevalence of deliberate self-harm (DSH) was more than half of the sample 62% (Table 1). Which indicated that it was widely practiced by adolescents in Pakistan.
- The comparison of prevalence of DSH among adolescents was conducted between both the genders with chi-square, (Table 2) $p < .001$ was generated by SPSS which established H1 to be true that difference exist in behavior of males and females.
- The prevalence of DSH in females was 81% which is twice as that of male 43% as shown in (Table 2). Hence female adolescent in Pakistan practice DSH more as compared to males.
- The most common method of DSH used by adolescents was biting 18.5%, followed by banging or hitting self 15.7%. Pulling hair was observed at 11.1%, severe scratching and sticking self with needles both at 9.8% as depicted in (Table 3).
- 8.7% interfered with wound healing as method of DSH. 5.9% used cutting and swallowing dangerous substances as DSH methods. Pinching was observed 5.6% among adolescents. Rubbing skin against rough surface at 5.2%, burning and carving were least used methods at 2.1% and 4.0% respectively as indicated in (Table 3).
- Gender wise frequently used methods were also analyzed with the help of frequency distribution and multiple responses indicated in (Table 4). The most commonly used method of DSH both in male 44.2% and in females 44.2% was biting.
- 32.6% males and 38.3% females used banging and hitting self as a DSH method (Table 4).
- Hair pulling was used as a DSH method by 30.9% females as shown in (Table 4) and 16.3% in males.
- The method of sticking self with needles was used by 27.2% females, and 14.0% males indicated in (Table 4).
- Interfering with wound healing (e.g., picking scabs) was analyzed as 23.5% among females and 14.0% among males (Table 4).
- Severe scratching as a method of DSH among females was 22.2%, and males 23.3% (Table 4).
- Swallowing dangerous substances as a method of DSH was 17.3% in females, and 7.0% in males (Table 4).
- Cutting was used 16.0% females and 9.3% as a DSH method (table 4.4).
- Pinching as a method in females was at 12.3% and males the percentage was more 14.0% (Table 4).
- 16.3% males prefer rubbing skin against rough surface as the form of DSH whereas only 9.9% females perform this act (Table 4).
- Burning was found 6.2% among females and 2.3% among males as a way of DSH (Table 4).
- 3.7% females participated in carving and 4.7% males as a way of DSH (Table 4).
- 32.2% participants reported that they practice DSH when they were alone (Table 5).

- 22.6% said that they sometimes feel pain while harming themselves (table 4.5).
- 12.9% said that they sometimes feels better while and after doing deliberate self-harm (Table 5).
- 17.7 % reported that it's not easy to resist the urge of deliberate self-harm (Table 5).
- Affect Regulations was the most common cause which lead adolescents toward deliberate self-harm (Table 18 & Table 19) And least responsible causes were anti-dissociation, revenge and self-care.

6. Discussion

This study investigated the prevalence and causes of deliberate self-harm among adolescents in Pakistan. An overall prevalence of 62% was calculated of DSH among adolescent supporting the findings of (Bjärehed et al., 2013) and (Haider & Haider, 2001) that DSH is the among most wide spread problem of present times. Females were found to be comparatively more active participants of DSH with a prevalence of 81% and males 43% supporting the findings of (Patton et al., 2007). Affected regulation was found to be the most common cause of DSH among adolescents supporting (Muehlenkamp et al., 2012), (Klonsky & Muehlenkamp, 2007) and (Nock, 2009) work. 17.7% of the respondents agreed that it was difficult to fight the urge of DSH as was reported by (Gratz & Gunderson, 2006) that DSH is addictive in nature and is hard to leave as it provides an easy escape from unwanted feeling/emotions .

Biting was found to be the most frequently used method of deliberate self-harm by both male and female adolescents as was found by (Gandy, 2016). While carving and burning were the least frequently used methods of deliberate self-harm.

7. Conclusion

This research was undertaken to find out the prevalence of DSH among adolescents of Pakistan. It was found that more than half the adolescents indulge in self harming practices. The findings of the study also indicted that female Pakistani adolescent's practice DSH twice as more as males. A cross sectional survey was conducted using ISAS inventory and affect regulation was found to be the most common cause of DSH and biting was the most adopted method of self-harm. Whereas anti-dissociation, revenge and self-care were the least common factors resulting in practice of DSH in adolescents. Furthermore burning and carving were found to be least used methods of DSH among adolescent.

8. Limitations & Recommendations

- This study was limited to only one city .i.e. Lahore. It is suggested to future researchers to explore the query in other cities of Pakistan. They can also make a comparative study between adolescents of DSH behavior in different cities of Pakistan.
- This study only focused on causes enlisted in inventory statement about self-injury. Future researchers are suggested to explore more potential causes which might explain the DSH behavior among adolescents.
- For adolescents who are found to be victims of such practices should not only be offered medical help for physical healing of affected areas of their bodies rather they

should be offered psychological counseling by a proper psychologist. As psychologists will help them from returning back to such practices if they face any mental strain or any sad, gloomy situation in their life ever again.

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