

## Prevalence of Non-suicidal Self- Injury: A Comparative Analysis of Gender related Differences

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### ABSTRACT

The current study focuses on Non Suicidal Self Injury (NSSI), and it's a comparative analysis between the different genders; males and females. The sample chosen for the study is a heterogeneous group, comprising of 83 responses from males and 97 responses from females. The Functional Assessment of Self-Mutilation (FASM) questionnaire by Lloyd, Kelly and Hope (1997) was used to collect data and the sampling methods used were convenient sampling and snowball sampling. The first objective of the study was to assess the difference between males and females considering, in which gender is NSSI behaviour more common. The results show that the prevalence of NSSI behaviour was higher in females (61.85%) than males (39.75%). The second objective of the study was to find out which NSSI behaviour occurs the maximum number of times in males as well as females. The results showed that the NSSI behaviour that occurred most often in females was, minor NSSI behaviour which is, "biting yourself(e.g.; mouth or lips)" and the NSSI behaviours most commonly observed in males were, minor NSSI behaviour which is, "hitting yourself on purpose" and moderate NSSI behaviour that is, "Picking at a wound".

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### I. INTRODUCTION

Non Suicidal self-injury or "NSSI" refers to the deliberate damaging of one's own body tissue without any suicidal intent and for purposes which might not be socially sanctioned such as to obtain relief from a negative feeling or cognitive state, to resolve an interpersonal difficulty and to induce a positive feeling state- American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5).

Some conventional forms of NSSI include behaviors such as cutting, burning, scratching, and hitting oneself (Briere and Gil, 1998; Laye-Gindhu and Schonert-Reichl, 2005; Whitlock et al., 2006; Klonsky and Muehlenkamp, 2007) and most self-injurers claim using more than one method (Favazza and Conterio, 1988; Favazza, 1992). NSSI may even include even more dangerous actions like breaking bone, injury to limbs, eye injury or auto-amputation.

Because NSSI is typically established as an outcome of emotional and psychiatric distress, and also as NSSI increases risk for committing suicide, it is imperative to establish accurate conceptual and clinical models of this disorder.

This disorder can be translated to a plethora of both somatic as well as psychological trauma and distress and even some trivial self-injury may lead to a serious medical complication.

NSSI is usually seen in individuals who are trying to handle worrying negative affective emotional states, in particular anger and depression. (Kerr, Muehlenkamp, & Turner, 2010). Empirical research indicates a growing inclination toward an increasing prevalence of self-injury, particularly with teenagers and young adults (In-Albon, Ruf, & Schmid, 2013).

As a result, NSSI can be seen as a big public health issue on its own. It is for this reason that the American Psychiatric Association's DSM-5 Child and Adolescent Disorders Workgroup opted for the classification of NSSI with its own diagnostic criteria (In-Albon, Ruf, & Schmid, 2013).

NSSI can be observed when:

- 1) Within the last year, the individual indulged in intentional self-inflicted damage to one's own body for at least 5 days. The intent of suicide was absent and the individual expected only minor or moderate physical harm.
- 2) The individual engages in the behavior with one or more of the following expectations:
  - To attain relief from a negative feeling such as relief from sadness.

- To induce a positive state as such to attain internal peace.
  - To resolve an inter-personal difficulty such as grasping attention.
- 3) The self-injury is associated with at least one of the following reasons:
- Interpersonal difficulties, negative feeling or thoughts such as occurring in the period prior to the self-injurious act.
  - Prior to participating in the act, a period of preoccupation with the intended behavior that is difficult to control.
  - Thinking about self-injury that occurs periodically, even when it is not acted upon.
- 4) The behavior is not socially sanctioned such as tattoos or body piercing.
- 5) The behavior or its consequences can cause clinically significant distress or interference in interpersonal, academic or other important areas of functioning.
- 6) The behavior does not usually occur exclusively in psychotic episodes, substance intoxication or during withdrawal. Any clinically diagnosed mental disorder should not be the result of such an action.

NSSI has a prevalence rate of approximately 1 to 4 percent in the adult population in the United States (Kerr, Muehlenkamp, & Turner, 2010) Furthermore, the extremely severe form of self-injury is seen in about 1 percent of the population (Kerr, Muehlenkamp, & Turner, 2010). Some studies have indicated a lifetime prevalence of NSSI being as high as 5.9% (Klonsky, 2011). NSSI is more common among teenagers and young adults, with a reported 15 percent admitting to some type of self-injury (Kerr, Muehlenkamp, & Turner, 2010).

In a study by University of Pittsburgh School of Medicine, University of Wisconsin, Northwestern University Feinberg School of Medicine, Drake University and AMITA Health Alexian Brothers Behavioral Health Hospital several notable findings regarding similarities and differences in NSSI characteristics and treatment outcomes for males and females were seen.

First, males and females did not differ with respect to most NSSI characteristics, including body locations, frequency, severity, and impulsivity of NSSI. Males and females also reported almost the same ages of onset for NSSI, rates of wanting to stop NSSI, identifying NSSI as a problem, rituals or substances with NSSI, and dissociation or suicidal thoughts with NSSI, as well as similar rates of social NSSI functions. Although it was hypothesized that females would endorse cutting more frequently than males, rates of almost all NSSI methods did not differ by gender; only burning/branding (more common in males) and scratching/rubbing/pinching (more common in females) showed gender differences. (Comprehensive Psychiatry. 2018 Apr; 82:53-60.)

One of the major problems in conducting a study in suicide and related behaviors is the confusing cluster of related terminologies. Deliberate Self Harm or DSH refers to the attempt to injure oneself irrespective of the intention behind the act. The term “parasuicide” is often used conversely. Non-fatal suicidal behavior is another term, which stands for a non-lethal “deliberate” act of self-injury, in which a person may or may not have the objective to die. NSSI, on the other hand, clearly mentions “lack of intent” to die at the time of committing the act.

Gandhi *et al* (2015) in their review of 38 Indian studies on self-injurious behavior found a considerable confusion in interpreting the prevalence of such behaviors due to overlapping use of associated terminology. They found only one community study, which closely adhered to the internationally accepted definition of NSSI, and reported a lifetime prevalence of 31% in a sample of young adults. Another study carried out among 1571 male and female school and college students in India found the prevalence of NSSI to be 33.8%. These numbers are higher than the pooled prevalence of NSSI of 17.2% among adolescents and 13.4% among young adults from non-clinical samples from studies in various countries.

Whether the figures in India are actually higher than the global estimates or whether the rates could be increased in Indian studies due to inclusion of milder forms of self-injury such as skin-picking, hair-pulling, or tattooing remains to be determined. Further community-based studies are also important to determine diagnostic and clinical approaches, which take our cultural and religious factors into consideration.

The position of NSSI in the broader spectrum of suicidal behavior still remains to be uncertain. According to some studies, its ability to reduce negative emotions and regulate positive emotions can serve as a protective factor against a complete suicide. However, from a different perspective, NSSI could increase the risk of future suicide attempts. Research efforts in India are also required to find out whether the socio-demographic profile as well as risk and protective factors of NSSI are different from that of individuals who make serious suicide attempts. Since preliminary research findings have reported higher NSSI in India and its association with increased hospitalization and suicide, it is a potential nominee for further research.

Till date, only a few studies have examined differences in NSSI characteristics between males and females beyond prevalence rates. Findings from the studies of undergraduate college students suggest that there is no significant discrepancy between females and males in number of NSSI methods used. In addition, Bresin and Schoenleber found that certain methods of NSSI were more commonly reported among females (i.e., cutting), whereas other methods did not exhibit a gender disparity (i.e., burning or self-hitting).

## **II. REVIEW OF LITERATURE:**

- Non-suicidal self-injury (NSSI) in adolescents is a major public health concern. The first goal of a study by García-Nieto R, Carballo JJ, Díaz de Neira Hernando M, de León-Martinez V, Baca-García E (2015) was to describe the characteristics and functions of NSSI and NSSI thoughts in an adolescent outpatient sample which consisted of 267 adolescents. All the participants were administered the Spanish version of the Self-Injurious Thoughts and Behaviors Interview (SITBI). The result showed a total of 21.7% of patients reported having engaged in NSSI at least once in their lifetime which shows that the prevalence rate among the adolescents to be fairly high.
- Various other studies such as the study by Gandhi et al, (2015) showed that among 1571 male and female school and college students in India, the prevalence of NSSI to be 33.8%. These figures are higher than the pooled prevalence of NSSI of 17.2% among adolescents and 13.4% among young adults from nonclinical samples from studies in various countries.( Bholá P, Manjula M, Rajappa V, Phillip M, 2017)
- In a study by Andrea L. Barrocas, Benjamin L. Hankin, Jami F. Young and John R. Z. Abela (2012) consisting of 665 youths it was found that nearly 8% have engaged in NSSI, 9.0% of girls and 6.7% of boys reported NSSI engagement; 7.6% of third-graders, 4.0% of sixth-graders, and 12.7% of ninth-graders reported NSSI engagement. Here we can observe that although the overall prevalence rate is relatively lower than that of other studies, females in this study reported a higher engagement in NSSI when compared to males.
- This study by Ana Gonzalez-Ana Gonzalez-Blanks, Jessie M. Bridgewater, Tuppett M. Yates. (2020) Blanks, Jessie M. Bridgewater, Tuppett M. Yates. (2020) reproduces and extends previous work by examining how age of Non Suicidal Self-Injury (NSSI) onset is connected to NSSI severity, suicidal behavior and perceived recovery from NSSI. 644 University students who reported engaging in NSSI within the past year completed on-line questionnaires assessing NSSI characteristics and suicidal behavior. Participants who began self-injuring at or before age 12 reported more lifetime incidents of NSSI, greater method variance, and medically severe NSSI than those who began NSSI at older ages (17 years). Those with a typical age of onset (13–16 years) did not differentiate from the younger age group on method variance, medical severity, past year frequency, or perceived recovery but did differ from those with an older age of commencement. The proportion of individuals reporting suicide attempts greatly increased as the age of commencement became younger. Early detection and management is important for reducing the negative impact of engaging in NSSI.
- This study by P. L. Plener, G. Libal, F. Keller, J. M. Fegert and J. J. Muehlenkamp (2009) examined the prevalence of non-suicidal self-injury (NSSI), suicide attempts, suicide threats and suicidal ideation in a German school sample and compared the rates with a similar sample of adolescents from the mid-western USA by using cross-nationally validated assessment tools. The Data was collected from 665 adolescents (mean age 14.8 years and range 14–17 years) in a school setting. The participants completed the Self-Harm Behavior Questionnaire (SHBQ), the Ottawa Self-Injury Inventory (OSI) and a German version of the Center for Epidemiological Studies–Depression Scale (CES-D). A quarter of the participants (25.6%) reported at least one act of NSSI in their life, and 9.5% of those students answered that they had hurt themselves repetitively (more than four times). Forty-three (6.5%) of the students reported a history of a suicide attempt. No statistically significant differences were found between the German and US samples in terms of self-injury or suicidal behaviors.
- Even though some studies have reported identical prevalence rates for non-suicidal self-injury (NSSI) among men and women, few studies have investigated gender differences in NSSI. This study by Margaret S. Andover, Jennifer M. Primack, Brandon E. Gibb & Carolyn M. Pepper (2010) describes and compares the primary NSSI characteristics among a non-clinical sample on the basis of gender differences. 48 individuals reporting a history of NSSI were interviewed (Mean age = 18.52 years). NSSI characteristics, including frequency, age of onset, method of NSSI, pain and control during NSSI, and extent of medical injury were compared between men (19) and women (29). Both the genders differed significantly on age of onset, degree of medical injury, and NSSI methods.

➤ This study by Janis Whitlock (2011) describes basic non-suicidal self-injury (NSSI) characteristics and to explore gender differences. A random sample from 8 universities was invited to participate in a Web-based survey in 2006–2007; 14,372 individuals participated. Analysis gauged sex differences in NSSI prevalence, practices, severity, perceived dependency, and help-seeking. It was found that the lifetime NSSI prevalence rates averaged 15.3%. Females were more likely than males to self-injure because they were upset or in hopes that someone would notice them while Males were 1.6 times more likely to report anger and 4.0 times more likely to report intoxication as an initiating factor. Hence it was concluded that NSSI is common in college populations but varies significantly by sex.

➤ Colleen M. Jacobson & Madelyn Gould conducted a research in the paper “The Epidemiology and Phenomenology of Non-Suicidal Self-Injurious Behavior Among Adolescents: A Critical Review of the Literature” in 2007. This article fundamentally surveyed the examination tending to the study of disease transmission and phenomenology of non-self-destructive self-injury (NSSI) among young people. Articles were distinguished through a pursuit of Medline and Psycinfo. Discoveries show a lifetime predominance of NSSI extending from 13.0% to 23.2%. Purposes behind taking part in NSSI incorporate to control feeling and to evoke consideration. Connects of NSSI incorporate a background marked by sexual maltreatment, melancholy, tension, alexithymia, antagonistic vibe, smoking, separation, self-destructive ideation, and self-destructive practices. Proposed regions of future research incorporate recognizing the mental judgments related with NSSI among young people, deciding the transient connection among NSSI and self-destruction endeavors, becoming familiar with the course of NSSI, understanding the organic underpinnings of NSSI, and distinguishing compelling medicines for NSSI in youths.

➤ The following study was conducted by E. D. Klonsky in the paper, “Non-suicidal self-injury in United States adults: prevalence, socio-demographics, topography and functions” in 2011. Non-self-destructive self-injury (NSSI) has gotten expanded consideration in the psychological wellness writing and has been proposed as an indicative element for DSM-5. The nature of NSSI was inspected in an arbitrary digit dialling test of 439 grown-ups in the United States. Lifetime predominance of NSSI was 5.9%, including 2.7% who had self-harmed at least multiple times. Strategies for NSSI reported included cutting, consuming, gnawing, scratching/scratching skin, hitting, meddling with wound mending and skin picking. Half of self-injurers revealed different strategies. The average age of commencement was 16 years (middle 14 years). Occasions of NSSI inconsistently co-happened with self-destructive musings and with utilization of liquor or drugs and once in a while required clinical treatment. Most injurers detailed that NSSI worked to reduce negative feelings. Less announced that they self-harmed to rebuff themselves, to speak with others/get consideration or to get away from a circumstance or obligation. NSSI was related with more youthful age, being unmarried and a past filled with emotional well-being treatment, yet not with sexual orientation, ethnicity, instructive history or family unit income. Results are generally reliable with past research in immature and youthful grown-up tests. Study impediments in any case, this investigation give the most complete and point by point data to date with respect to the pervasiveness and attributes of NSSI in US grown-ups. Later on, it will be significant for enormous scope epidemiological investigations of psychopathology to incorporate inquiries concerning NSSI.

➤ The following study was conducted by Nancy Heath, Jessica Toste, Tatiana Nedecheva, and Alison Charlebois (2008) in the paper, “An Examination of Non-suicidal Self-Injury among College Students. Journal of Mental Health Counselling.” This examination analyses qualities (i.e., pervasiveness, technique, period of beginning, recurrence) of non-suicidal self-injury (NSSI) and related hazard factors in an understudy test. Results uncovered 11.68% confessed to participating in NSSI in any event once and no huge sexual orientation contrast in event of NSSI. Indeed, even in this school test, the individuals who self-harm contrasted generously from non-self-injurers with respect to feeling guideline, yet were not found to vary altogether on either early connection or youth injury and misuse. Significance of comprehension NSSI as a developing conduct among understudies is examined.

➤ The following study was conducted by andrea l. Barrocas, benjamin l. Hankin, jami f. Young and john r. Z. Abela in the paper , “rates of non-suicidal self-injury in youth: age, sex, and behavioural methods in a community sample” in 2012. The objective was to evaluate the rate and conduct strategies for non-suicidal self-injury (NSSI) in a network test of youth and look at impacts old enough and sex. Overall, 53 (8.0%) of the 665 youth revealed taking part in NSSI; 9.0% of young ladies and 6.7% of young men detailed NSSI commitment; 7.6% of third-graders, 4.0% of 6th graders, and 12.7% of ninth-graders announced NSSI commitment. Young ladies detailed cutting and cutting skin frequently, while young men revealed hitting themselves regularly. At long last, 1.5% of youth met a few rules for the proposed fifth version of the diagnostic and statistical manual of mental disorders (dsm-5) analysis of NSSI. Ninth-grade young ladies appear to be most in danger, as they take part in NSSI at multiple times the pace of young men. Conduct techniques for nssi likewise differ by evaluation and sexual orientation.

➤ The following study was conducted by Aviva Laye-Gindhu & Kimberly A. Schonert-Reichl in the paper Non-suicidal Self-Harm among Community Adolescents: Understanding the “What’s” and “Whys” of Self-Harm in 2005. This investigation looks at self-hurt in a network test of teenagers. All the more explicitly,

the examination recognizes the pervasiveness and sorts of self-hurt, explains the nature and basic capacity of self-hurt, and assesses the connection of mental alteration, socio-demographic, and wellbeing hazard factors to self-hurt. Self-report surveys evaluating self-hurt, modification, wellbeing practices, self-destruction history, and social attractive quality were finished by 424 school-based young people. By and large, 15% of the teenagers announced taking part in self-hurt conduct. Investigations uncovered sexual orientation contrasts across practices and inspirations. Young people who showed hurting themselves detailed altogether expanded solitary conduct, enthusiastic trouble, outrage issues, wellbeing hazard practices, and diminished confidence. Results offer help for the adapting or influence guideline model of self-hurt. Discoveries propose that self-hurt is related with maladjustment, self-destruction, and other wellbeing practices characteristic of hazard for negative formative directions.

➤ The following study was conducted by Michael J. Sornberger MA and Nancy L. In the paper “Non-suicidal Self- Injury and Gender: Patterns of Prevalence, Methods, and Locations among Adolescents.” Non-suicidal self- injury (NSSI) among young people is a developing concern. Be that as it may, little is thought about sexual orientation and highlights of this conduct. Sexual orientation contrasts in NSSI among an example of 7,126 teenagers were explored, 1,774 of whom announced having occupied with NSSI. Sex contrasts in predominance, technique, and area of NSSI were inspected. Discoveries uncovered those females’ detailed higher paces of NSSI, all the more cutting and scratching, and a larger number of wounds to arms and legs than their male partners. Guys detailed all the more consuming and hitting- type conduct, just as wounds to the chest, face, or private parts. This features a fascinating example of NSSI, which future research ought to consider to precisely analysing NSSI in females and guys.

➤ The following study was conducted by Marie-France Lafontaine, Jean-François Bureau, Paula Cloutier & Cathy Dandurand in the paper, “The Influence of Romantic Attachment and Intimate Partner Violence on Non-Suicidal Self-Injury in Young Adults” in 2009. In spite of a wealth of hypothetical hypothesis, not many observational examinations have analysed the effect of close connection working on NSSI. This study inspects the impact of sentimental connection and got personal accomplice brutality (physical, mental and sexual) on on-going reports of NSSI practices and contemplations. The example was made out of 537 (79.9% female) principally Caucasian college understudies between the ages of 18 and 25 years. Besides, the experience of private accomplice brutality developed as a noteworthy indicator of NSSI practices in the two people. Proceeded with exact examinations concerning the impact of close connection working on NSSI will encourage the advancement of mental intercessions for youthful grown-ups managing self-hurt.

➤ The following study was conducted by Nicholas W. Bakken and Whitney D. Gunter in the paper, “Self-Cutting and Suicidal Ideation among Adolescents: Gender Differences in the Causes and Correlates of Self-Injury” in 2011. As of late, non-self-destructive self-injury (NSSI) among teenagers has been recognized as alarmingly basic spot. A few examinations have recommended that more than one out of eight youths have occupied with self-cutting or other self-harming practices. Considerably all the more a worry is that self-injury frequently foretells self-destruction or self-destruction endeavours. With self-cutting regular in secondary schools, understanding the forerunners and connects of such conduct may support guides and others general wellbeing authorities recognize grieved understudies and start protection measures. This examination uses information from 2,639 secondary school understudies from the Delaware Youth Risk Behaviour Survey to research the sex contrasts in NSSI and self-destructive ideation. By and large, 13% detailed taking part in NSSI inside the previous year, with females announcing altogether higher rates (17%) of NSSI than males (9%). Results demonstrate that there are noteworthy sex contrasts in NSSI and self-destructive musings dependent on past exploitation encounters, detailed substance use, sadness, wellbeing practices, and sexual direction.

➤ The following study was conducted by Naphisabet Kharsati and Poornima Bhola in the paper, “Patterns of non-suicidal self-injurious behaviours among college students in India” in 2014. Non-self-destructive self-injury (NSSI) is a developing worry among experts working with youth. The examination investigated the event, strategies, attributes and announced explanations behind NSSI among an example of understudies in India. An aggregate of 470 members from undergrad and postgraduate universities finished the Functional Assessment of Self-Mutilation (FASM) questionnaire. Results showed that 31.2% of the members revealed NSSI in the previous year, with the mean time of beginning being 15.9 years. Moderate/serious types of NSSI were accounted for by 19.8% of the example. The most widely recognized strategy was self-hitting (15.2%) trailed by cutting or cutting skin (13.2%). A greater part of self-injurers supported various techniques for NSSI, and there were no noteworthy sexual orientation contrasts in NSSI rates. The NSSI was performed both to manage inside passionate states (programmed support) and to impact others in the earth (social reinforcement). The most ordinarily embraced purposes behind NSSI were 'to feel loose' and 'to deal with the circumstance', while the least as often as possible embraced reasons were 'to drive others mad' and 'to stay away from school, work, or other activities’.

### **III. METHODOLOGY**

#### **(3.1) AIMS**

- The aim of the present study is to analyse and compare whether there is any significant difference between male and female gender type on the basis of prevalence of NSSI behaviour.
- The aim is also to assess which type of NSSI behaviour is common in different genders.

#### **(3.2) OBJECTIVES**

The current study focuses on Non Suicidal Self Injury (NSSI), and it's a comparative analysis between the different genders. The sample chosen for the study is a heterogeneous group, comprising of 83 responses from males and 97 responses from females.

The major objectives of the study are;

- 1) To assess and compare the possibility of any significant difference between males and females in terms of prevalence of NSSI behaviour.
- 2) To examine which type of NSSI behaviour is common in males as well as females.

#### **(3.3) HYPOTHESIS**

- There is a significant difference between NSSI behaviour among males and females.
- There is no significant difference between NSSI behaviour among males and females.

#### **(3.4) RESEARCH DESIGN**

- Type of study- A cross-sectional study.
- Venue- Various Colleges and Universities such as Amity University, Kolkata, J.D Birla Institute and St. Xavier's College and University along with others.
- Universe- Kolkata
- Sampling method- Simple Random Sampling Method.

#### **(3.5) INCLUSION CRITERIA**

The current study focuses on Undergraduate and Postgraduate students, from across different universities who are aged between the range of 18-23 years.

#### **(3.6) TOOL USED**

The Functional Assessment of Self-Mutilation (FASM) questionnaire by Lloyd, Kelly and Hope (1997).

#### **(3.7) TOOLS DESCRIPTION**

The FASM questionnaire was used to collect data from the sample and determine the population who engage in Self-Mutative Behaviour (SMB). All the items stated in the FASM questionnaire reflect the behaviour that were practiced by adolescents and/or who have a history of SMB. The questionnaire consists of 11 specific self-injurious methods and an extra column which includes any other behaviour, it analyses whether the participant has involved themselves in SMB recently over the past one year. The questionnaire attempts to find out the frequency of involvement in SMB, and the frequency ranging from never to more than 10 times (0, 1, 2-5, 6-10 and >11).

#### **(3.8) PROCEDURE**

The data was collected from 180 individuals, using convenient and snowball sampling method. The data was obtained from undergraduate and postgraduate students, ranging from 18-23 years across numerous universities, with mean age of 19.58. Data collection was done by using questionnaire method, and the questionnaire used was FASM. The sample population was categorized into two sub-types on the basis of genders; males and females. It was done to assess the any possible difference in the occurrence of NSSI behaviours between males and females. The data was structured to observe the frequency of 11(+ other) SMB in males and females. The data was statistically analyzed for the assessment of the formulated hypothesis.

#### **(3.9) STATISTICAL ANALYSIS**

A descriptive analysis was carried out on all socio-demographic variables, to understand the different dimensions and parameters of the sample population. The structured tables which consisted the frequency of each behaviour for both males and females was further statistically processed. The frequency percentage, mean and standard deviation were calculated for each of the self-injurious, among both the genders.

#### **(3.10) ETHICAL CONSIDERATION**

- Voluntary participation by each individual was ensured.
- It was ensured that the confidentiality and anonymity of each respondent was maintained.

- Data was collected only after informed consent.

#### IV. RESULT TABLES

##### RESULT 4.1

##### TOTAL PERCENTAGE OF NSSI BEHAVIOUR

TYPE OF NSSI	0		1		2-5		6-10		=<11	
	NO	%	NO	%	NO	%	NO	%	NO	%
Cutting or Carving on skin	148	82.22	14	7.77	10	5.55	4	2.22	5	2.77
Burned skin	158	87.77	9	5	9	5	4	2.22	1	0.55
Gave self tattoo	163	90.55	10	5.55	7	3.88	0	0	1	0.55
Scraping skin to draw blood	153	85	12	6.66	11	6.11	2	1.11	3	1.66
Erased skin	170	94.44	5	2.77	2	1.11	2	1.11	2	1.11
Picked at a wound	128	71.11	17	9.44	25	13.88	3	1.66	8	4.44
Hitting yourself on purpose	126	70	21	11.66	24	13.33	7	3.88	2	1.11
Pulling hair out	146	81.11	10	5.55	16	8.88	6	3.33	3	1.66
Inserting objects under skin or nails	170	94.44	5	2.77	3	1.66	2	1.11	1	0.55
Biting yourself	121	67.22	14	7.77	28	15.55	8	4.44	9	5
Picked areas of the body to drawing blood	162	90	9	5	5	2.77	3	1.66	2	1.11

##### RESULT 4.2

##### MALE

<u>Method of self-mutilative behaviour</u>	0		1		2-5		6-10		=>11	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Cutting or carving on skin	75	50.67	4	28.57	2	20	3	100	0	0
Pulling out one's own hair	71	48.96	5	50	7	43.75	1	16.67	0	0
Hitting Self on purpose	58	46.03	12	57.14	10	41.66	4	57.14	0	0
Scraping skin to draw blood	73	47.71	4	33.33	5	45.45	1	100	1	33.33
Biting self	66	54.54	4	28.57	6	21.42	4	50	4	44.44
Picking areas of the body to the point of drawing blood	75	46.29	4	80	2	40	2	100	1	50
Inserting objects under skin or nails	80	47.33	2	22.22	1	33.33	1	50	0	0
Tattooing self	76	46.91	4	40	4	57.14	0	0	0	0
Burning skin	75	47.77	3	60	4	44.44	2	50	0	0
Picked at a wound	58	45.66	10	58.82	11	44	2	66.66	3	37.5
Erasing skin to draw blood	80	47.33	2	40	0	0	1	50	1	50

**RESULT 4.3**

**FEMALE**

Method of self -mutilative behaviour	0		1		2-5		6-10		=>11	
	NO	%	NO	%	NO	%	NO	%	NO	%
Cutting or carving on skin	73	75.25	10	10.30	8	8.24	1	1.03	5	5.15
Hitting yourself on purpose	68	70.10	9	9.27	14	14.43	4	4.12	2	2.06
Pulled out your hair	75	77.31	5	5.15	9	9.27	5	5.15	3	3.09
Got yourself a tattoo	87	89.69	6	6.18	3	3.09	0	0	1	1.03
Picked at a wound	70	72.16	7	7.21	14	14.43	1	1.03	5	5.15
Burned skin	83	85.56	6	6.18	5	5.15	2	2.06	1	1.03
Inserted Objects in nail or skin	90	92.78	3	3.09	2	2.06	1	1.03	1	1.03
Bit yourself	55	56.70	10	10.30	22	22.68	5	5.15	5	5.15
Picked areas of the body	87	89.69	5	5.15	3	3.09	1	1.03	1	1.03
Scraped skin	80	82.47	8	8.24	6	6.18	1	1.03	2	2.06
Erased skin	90	92.78	3	3.09	2	2.06	1	1.03	1	1.03

**RESULT TABLE 4.4**

**Different types of NSSI behaviour among different genders**

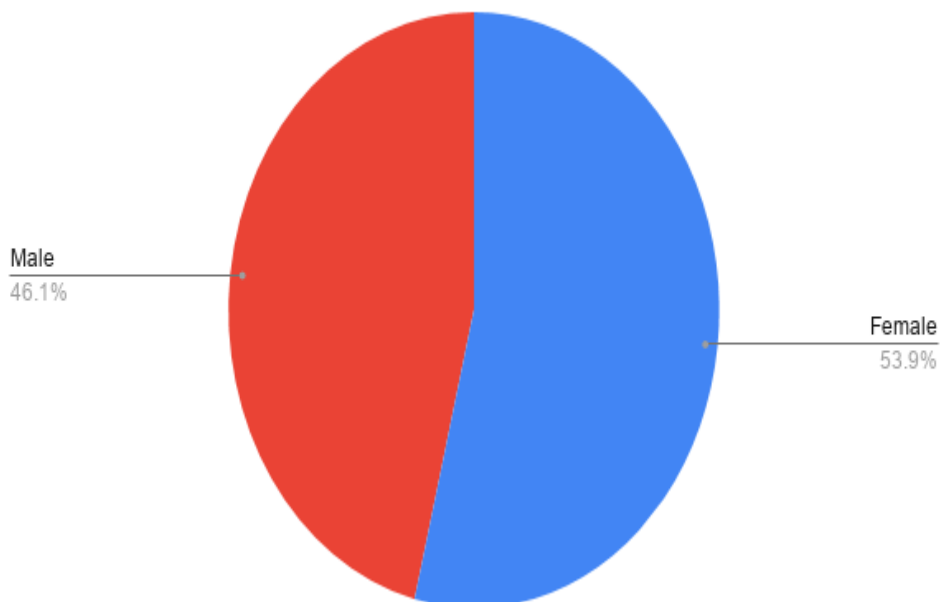
MINOR NSSI BEHAVIOUR of DIFFERENT FREQUENCIES OF 1, 2-5, 6-10 &=<11 TIMES	MALE	Mean	Standard Deviation	FEMALE	Mean	Standard Deviation
1- Hitting your self	57.14 41.66 57.14 0	38.98	26.99502	9.27 14.43 4.12 2.06	7.47	5.542929
2- Pulling hair out	50 16.67 43.75 0	27.6	23.40803	5.15 9.27 5.15 3.09	5.66	2.59211
3- Inserting objects under your skin	22.22 33.33 50 0	26.39	20.97154	3.09 2.06 1.03 1.03	1.8	0.98615
4- Bit yourselves	28.57 21.42 50 44.44	36.11	13.35376	10.03 22.68 5.15 5.15	10.75	8.277747
5- Picked areas of the body	80 40 100 50	67.5	27.53785	5.15 3.09 1.03 1.03	2.58	1.9723



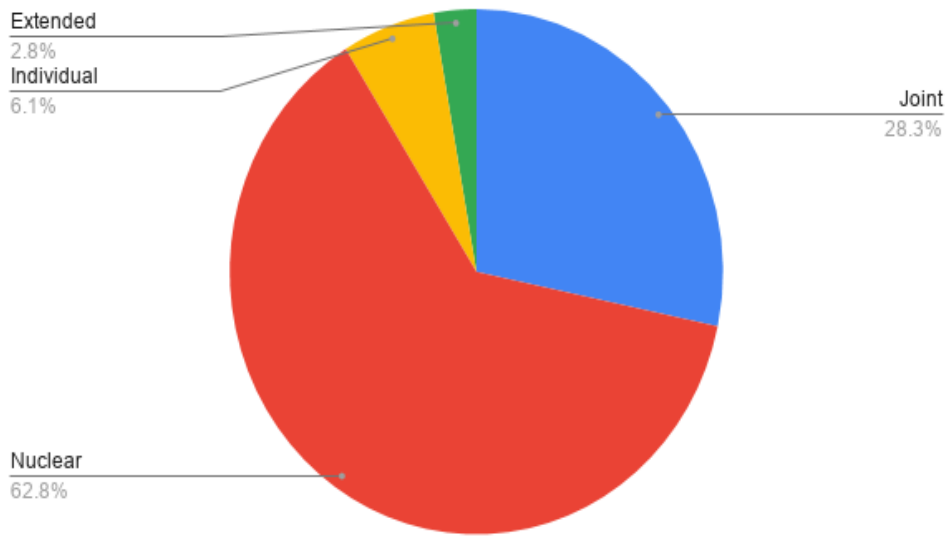
<b>MODERATE NSSI BEHAVIOUR of DIFFERENT FREQUENCIES OF 1, 2-5, 6-10 &amp;=&lt;11TIMES</b>	<b>MALE</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>FEMALE</b>	<b>Mean</b>	<b>Standard Deviation</b>
1- Cutting or carving	28.57 20 100 0	37.14	43.58128	10.30 8.24 1.03 5.15	6.18	4.033253
2- Scraping skin to draw blood	33.33 45.45 100 33.33	53.03	31.83194	8.24 6.18 1.03 2.06	4.38	3.403159
3- Tattooing self	40 57.14 0 0	24.28	28.90176	6.18 3.09 0 1.03	2.58	2.725124
4- Burning skin	60 44.44 50 0	38.61	26.53291	6.18 5.15 2.06 1.03	3.6	2.45189
5- Erasing skin	40 0 50 50	35	23.80476	3.09 2.06 1.03 1.03	1.8	0.98615

(5)

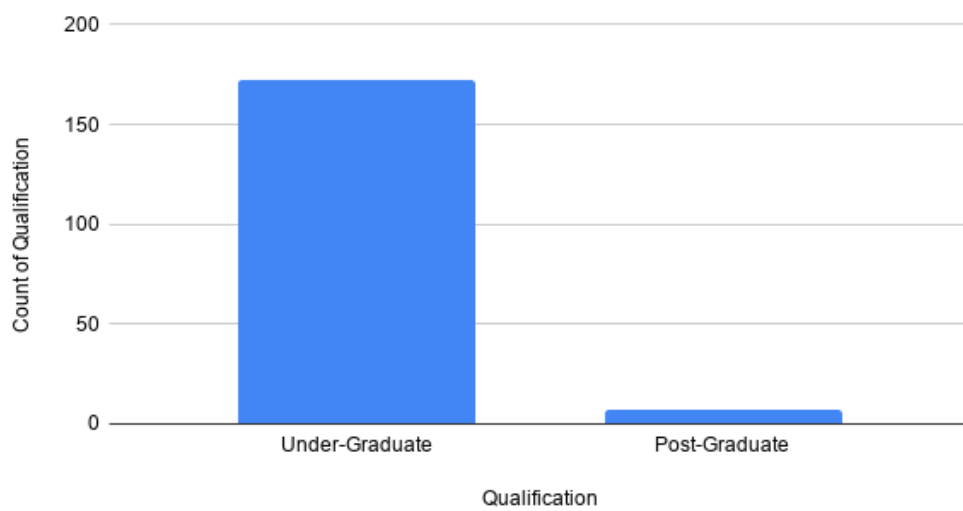
Count of Gender



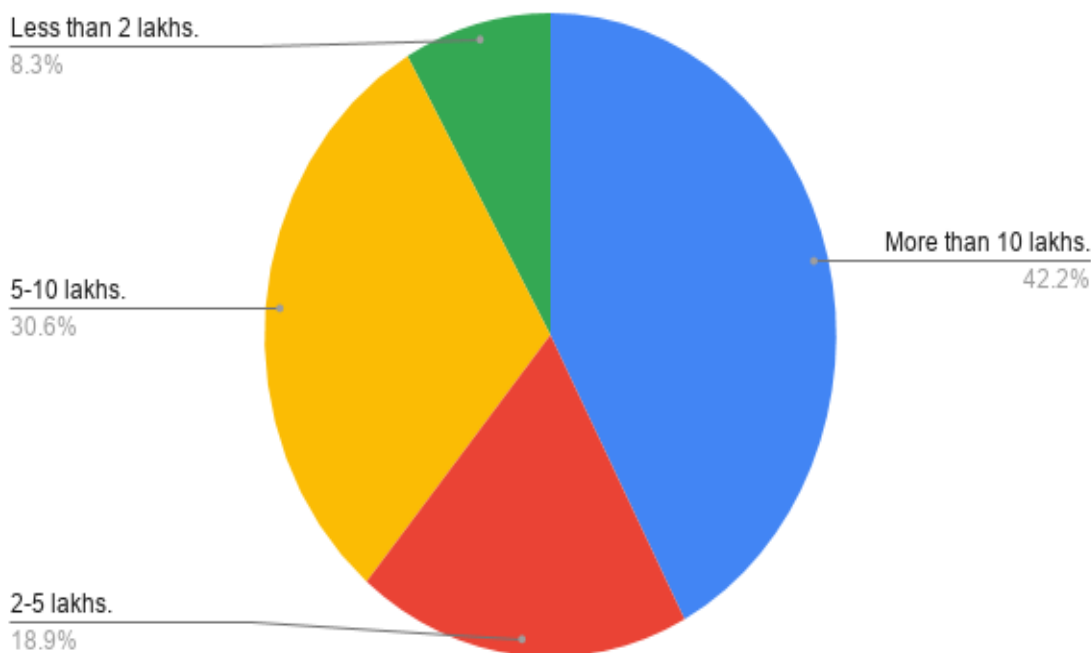
### Count of Family Type



### Count of Qualification



### Count of Approx. Family Income (Annual)



### V. DISCUSSION

The study was carried out on 180 voluntary participants. Among which 53.9% were female and 46.1% male. In numbers 97 female and 83 male participants. Majority of the participants were Under-graduates, which is 173 out of 180 (96.1%) and the remaining were Post-Graduates (3.9%). Out of the 180 participants, 68.9% were from joint or extended family types whereas the remaining 31.1% were either from nuclear or single family. The majority of the participants belong to a family with the annual income of more than 10 lakhs (42.2%) whereas; only 8.3% of the participants belong to a family with annual income less than 2 lakhs which was the least in number.

The mean age of the participants was 19.58.

The prevalence rate in females was found to be 61.85% (60 out of 97 females) which is more than that of males which is 39.75% (33 out of 83 males).

Out of all the practices, biting one-self was reported by the most number of participants, 59 out of 180 (32.77%) whereas inserting objects under the nail or skin and erasing your skin were reported the least number of times, 11 out of 180(6.11%). (See Result table 4.1)

47 out of 180 participants (26%) reported that the reasons for harming one-self were “to punish one-self” and “to stop the bad feeling”, which were the highest in number.

In males, hitting one-self and picking at a wound were the most common practice. 25 out of 83 male participants (30.12%) claimed to be involved in either of the mentioned practice at-least once. (See Result table 4.2)

On the other hand, in females, biting one-self was reported the most number of times 42 out of 97 female participants (43.29%). (See Result table 4.3)

It was also found that the participants indulged more into minor forms of NSSI such as “pulling your hair out”, “biting yourself” etc. than the moderate forms such as “picking a wound”, and “scraping the skin to draw blood” etc. by 6.2%. (See Result table 4.4)

The main aim of the study was to comparatively analyze the gender differences in the prevalence of Non-Suicidal Self-Injury (NSSI).

Non-suicidal self-injurious behaviour refers to purposefully causing damage to one’s body tissue without the intention of committing suicide and for reasons which are not socially accepted. Early research shows that non-suicidal self-injurious behaviours were more common in females than in males supported by various reports derived from many researches on young and adult populations (Darche, 1990; Suyemoto and MacDonald, 1985; Zlotnick, Mattia and Zimmerman, 1999). More recent research work shows much less degree of sex difference and some work showing no significant difference between the rate of NSSI between males

and females over a lifetime (Briere and Gill, 1998; Gratz, 2001; Klonsky et al., 2003; Muehlekamp and Gutierrez, 2004; Stanley, Gameroff, Michalsen and Mann, 2001). However it was observed that sex based differences were found between males and females only when the frequency of the particular NSSI behaviour was observed. It varies across different features of NSSI. For example, there is some documentation to prove that young adult females and adolescents engage in more of cutting behaviour than males do. (Rodham, Hawtons and Evans, 2004; Whitlock et al., 2006) Also young adult females may take on to forms of self-abrading much more than males (Whitlock et al., 2006). In case of males, in young adult males, it is seen that they indulge more in punching objects and in self-battery than females do (Whitlock et al., 2008).

The first objective of the study was to assess the difference between males and females considering, in which gender is the prevalence of NSSI behaviour is higher. The results show that prevalence rate of NSSI behaviour was higher in females rather than males. These results are supported by a study conducted by Margaret S. Andover, Jennifer M. Primack, Brandon E. Gibb & Carolyn M. Pepper (2010) which describes and compares the primary NSSI characteristics among a non-clinical sample on the basis of gender differences. 48 individuals reporting a history of NSSI were interviewed (Mean age = 18.52 years). NSSI characteristics, including frequency, age of onset, method of NSSI, pain and control during NSSI, and extent of medical injury were compared between men (19) and women (29). Both the genders differed significantly on age of onset, degree of medical injury, and NSSI methods.

The second objective of the study was to find out which NSSI behaviour occur the maximum number of times in males as well as females. The results showed that the NSSI behaviour that occurred most often in females was, minor NSSI behaviour which is, "biting yourself" and the NSSI behaviours most commonly observed in males were, minor NSSI behaviour which is, "hitting yourself on purpose" and moderate NSSI behaviour that is, "Picking at a wound".

## **VI. CONCLUSION**

In conclusion, this study which was based on the Gender differences in NSSI behaviours yielded a result which showed a significant difference in the prevalence rate as well as which type of behavior is common in both the genders. It can be established that the prevalence rate of NSSI behaviour is higher in females but males practiced more moderate type NSSI behaviours than females. It was also found that "biting yourself" was the most common behaviour found in females whereas, "hitting oneself" and "picking at a wound" were the most common practices in males.

Even though "NSSI" includes the aspect of the absence of a suicidal tendency, we should not underestimate the risk involved as well as the fact that hurting oneself irrespective of the motive may lead to serious physiological as well as psychological adversities.

## **LIMITATIONS**

A few limitations that we came across while conducting this study were as follows:

- Google forms were used for the process of data collection.
- The study was conducted in a short span of time.
- The sample size of this study cannot be considered to be large enough for a study involving NSSI behaviour.
- The sample was Homogeneous which decreases the possibility of receiving data from a sample consisting of a large amount of variety in terms of socio-demographic variables.

## **FUTURE DIRECTION**

This study does not only focus on the prevalence of NSSI in Males and Females but also on other dimensions such as the type of behaviour seen the most number of times in both the genders. This extension of the study is relatively new and only a few studies have previously explored this aspect as well. Taking into account that NSSI and its related domain is a fairly new area of study; it has an ample amount of potential which needs to be explored even further.

As we know that even though NSSI behaviors have no suicidal intent whatsoever, we cannot ignore the serious repercussions it might lead to such as a major physiological and/or psychological trauma. Even though there is no such cause and effect relationship between NSSI and Suicide due to the absence of the intent of suicide in NSSI, a correlation between these two aspects might be found. Studies in this domain will also act as a tool in eradicating these repercussions and also would help in prevention of suicide.

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