


Original Research Article

# Gender differences in emotional regulation capacity among the general population

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## Abstract

**Background:** Emotional regulation plays crucial part in overall psychological well-being of an individual as it impacts how he responds to stimuli. Evidences from past suggest that there are differences in emotional regulation strategies based on gender in patients suffering from different illnesses. However there is limited literature on emotional regulation strategies in general population.

**Material and methods:** This was a cross sectional study conducted at a tertiary care centre on 60 subjects comprised of both genders, with no psychiatric or physical co-morbidity at present or in past. Emotional regulation among both genders was studied using Difficulties in Emotional Regulation Scale (DERS).

**Results:** There was no significant difference in the socio-demographics of male and female participant groups. Among both gender, males had significantly higher difficulties in acceptance of emotions ( $P=0.035$ ) and impulse dyscontrol ( $P=0.014$ ) when compared to women. However, women had significantly lesser emotional clarity compared to men ( $P=0.003$ ).

**Conclusion:** These differences in emotional regulation strategies may be responsible for differences in clinical presentation and prevalence of various psychiatric illnesses among the gender group. Knowledge about emotional regulation strategies among both genders would help initiate gender specific interventions to avoid maladaptive behaviors and to prevent the onset or progression of illness.

## Key words

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Emotional regulation, Gender difference, General population, Strategies.

## Introduction

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Emotional regulation plays an important role in maintaining optimal psychological wellbeing. It includes varieties of strategies employed by an individual to influence the experience of, and behavioral response to an emotion [1]. According to Gross's model of Emotional regulation, the response to any stimuli is dependent upon attention and appraisal to that particular situation [2]. Regulation of emotions help in implementing the conscious or subconscious response to whether start, stop or change the direction of that particular emotion.

It has been a common belief that men and women react differently to emotions. In fact, it has been dubbed a "master stereotype" that women are more emotional than men [3]. This belief is especially prevalent when it comes to displaying emotion through behaviour and the intensity of emotional experience [4]. With the exception of rage and pride, this concept applies to a range of discrete positive and negative emotions such as happiness, fear, disgust, and sadness [5].

These evidences of difference in emotional regulation in both genders have been observed in various studies using self-reported experiences on frequency and the type of emotional regulation strategies used. This difference could be correlated to the neuroimaging studies on emotional responsiveness where men had higher reduction in amygdala activity during cognitive regulation, with lesser control-related prefrontal activity to reduce negative experiences as compared to women who showed greater ventral striatal activity [6].

Most of the illnesses linked to lack of emotional regulation have a significant gender disparity in prevalence. Disorders like Depression, Generalized anxiety disorder and Eating disorders are more prevalently seen in women

while disorders related to Substance use are more common in males [7 8]. Thus theories have been put forward indicating that this gender difference in emotional regulation strategies could be linked to differences in the clinical presentation of psychopathologies among the two genders [9]. Majority of previous studies have been done for evaluating the association of emotional regulation with the presence of either psychiatric illness or its relationship with coping strategies among individuals. This study was aimed at studying the gender difference of emotional regulation strategies in general population in the absence of any mental illness.

## Materials and methods

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This cross-sectional study was conducted at a tertiary care centre in Tamil Nadu over a period of 6 months (January 2021 to June 2021) after approval from the Institutional Human Ethics Committee. Attenders of the patients visiting General Medical and Surgical OPD, aged between 18 to 59 years with no physical and psychiatric illness at present or in the past, and no history of psychiatric illness in their first-degree relatives were included in the study. Written informed consent was obtained from all the participants. Sample size was calculated as 60. The presence of any psychiatric illness was ruled out by using SCAN (Schedule for Clinical Assessment in Neuropsychiatry). Socio-demographic details were collected and Difficulties in Emotional regulation Scale (DERS) was applied to all the participants.

### Instruments used

#### SCAN (Schedule for Clinical Assessment in Neuropsychiatry)

It is a semi-structured clinical interview to assess and diagnose psychiatric disorder. It can be used both for ICD-10 and DSM systems. This was a modification of Present State Examination and was applied to rule out the presence of any psychiatric illness [10].

### **Difficulties in Emotional Regulation Scale (DERS)**

DERS is a self-reported scale used to assess emotional dysregulation. It is a 36-item questionnaire developed by Gratz and Roemer in 2004. This scale assesses emotional regulation difficulties using six domains namely non-acceptance of emotions, difficulty engaging in goal-directed behavior when distressed, impulse dyscontrol, lack of emotional awareness, difficulty in accessing emotion regulation strategies and lack of emotional clarity. DERS was created to measure trait-level perceived emotion regulation capacity, with score calculation in such a way that higher values indicate more impairment or dysregulation [11]. The total DERS score can be divided into four quartiles, of which the last two quartiles signify higher emotional dysregulation. Thus the cut-off for categorizing participants with good and poor regulation was taken as 50<sup>th</sup> percentile, which was observed to be 93.5.

### **Statistical analysis**

Statistical analysis was done using SPSS v.21. Descriptive statistics was used to analyze the characteristics of study population i.e. socio-demographic variables and the presence of emotional dysregulation. Independent T-test was used to compare the sum of means of total DERS scale and means of individual subscale scores. For all statistical tests, p value significance was set at <0.05.

### **Results**

A total of 60 participants were assessed for emotional regulation of which 28 were males and 32 were females, with the mean age of 36.18±11.917 and 37.97±11.683 years respectively. 46% of males and 59% of females had middle or secondary school education. More number of females were unemployed and belonged to nuclear family when compared to males. However, there was no statistically significant difference in any of the socio-demographic variables among the male and female groups (**Table - 1**).

Based on the cut-off value, it was observed that out of the total number 46.4% of males and 53% of females had better emotional regulation, however the difference was not statistically significant (**Table - 2**).

Regarding DERS subscales, the mean scores for non-acceptance of emotional responses, impulsivity and lack of emotional awareness were comparatively higher in males when compared to females. However the difference was statistically significant only for non-acceptance (p=0.035) and impulsivity (p=0.014), with a mean difference of 1.714 and 1.045 respectively. On the contrary, difficulty accessing emotional management strategies, difficulty engaging in goal-directed behavior and lack of emotional clarity was observed to be comparatively more in females, and in the latter the difference was statistically significant (P value 0.003). There was no significant difference in the total DERS score among males and female gender group (**Table - 3**).

### **Discussion**

Females are generally viewed to have greater tendencies to experience, express, and dwell on their emotions while men are found to suppress or avoid both the experience and expression of emotions [12]. In our current study, socio-demographics of male and female participants were similar with no statistical difference between the groups. This resulted in unbiased findings as these factors like age, marital status, education and socioeconomic status could influence emotional regulation strategies [13]. Younger age group, unemployed, unmarried or divorced individuals are associated with poorer emotional regulation whereas higher educational and socioeconomic status is usually linked with better regulation [14]. However, the above findings are not consistent among different studies globally. Non acceptance of emotional response was seen to be significantly higher in males. This could be due to the stereotypical gender roles adopted in our society where it is believed that expressing emotions is a sign of

weakness hence men should not express emotions. However, this gives little insight to why women seek for help and more social support as they have higher acceptance of their negative emotions when compared to men [15].

Thus, women tend to engage themselves more in ways to distract them from distressing emotions and involve themselves in problem-focused coping methods [16].

**Table - 1:** Socio-demographic variables between the study groups.

	<b>MALE N=28</b>	<b>FEMALE N=32</b>	<b>Chi-square value/T-test</b>	<b>P- value</b>
<b>AGE</b>	36.18±11.917	37.97±11.683	-0.587 <sup>#</sup>	0.560
<b>EDUCATION</b>				
Illiterate/primary	7	9		
Middle/secondary	13	19	2.453	0.293
Graduate/professional	8	4		
<b>OCCUPATION</b>				
Professional/Semiprofessional	5	2		
Skilled/clericals	5	4	4.707	0.195
Semi-skilled/unskilled	13	13		
Unemployed	5	13		
<b>RESIDENCE</b>				
Rural	19	23	0.115	0.735
Urban	9	9		
<b>SOCIO-ECONOMIC STATUS</b>				
Lower	10	12		
Middle	15	18	2.190	0.701
Upper	3	2		
<b>MARITAL STATUS</b>				
Married	20	24		
Unmarried	8	6	2.393	0.437
divorced/widowed	0	2		
<b>FAMILY TYPE</b>				
Nuclear	17	24	1.408	0.235
Joint	11	8		

*#- T test value*

**Table - 2:** Prevalence of emotional dysregulation among the gender groups.

	<b>MALE N (%)</b>	<b>FEMALE N (%)</b>	<b>Chi-square value</b>	<b>P value</b>
<b>Good regulation</b>	13(46.4%)	17(53%)	0.268	0.605
<b>Poor regulation</b>	15(53.6%)	15(47%)		

*P<0.05 was considered statistically significant.*

Goal-directed behavior indicates the integration of two kinds of information namely the knowledge of causal implications or outcome of an action and the value of outcome (reward) which further affects decision making, that is

associated with responses in ventral striatum, caudate and anterior cingulate cortex [17 18]. There was no statistically significant difference found between the gender groups in difficulties

to engage in goal directed behavior when distressed.

Men are found to indulge in more impulsive and reward seeking behaviors in order to avoid negative emotions. This has been associated with increased alcohol intake or other substance use as

a part of their coping mechanism. This has also been noted in heritability studies among adolescent age group where young males showed higher impulsivity. Similar results have been found in our study where men showed significantly higher levels of difficulty in impulse control [19, 20].

**Table - 3:** Comparison of emotional regulation capacity between the gender groups.

DERS SUBSCALES	MALE	FEMALE	T-TEST value	Mean difference	P value
<b>Non-acceptance</b>	15.11±2.006	14.06±1.740	2.160	1.045	0.035*
<b>Difficulty in Goals</b>	14.75±1.936	15.06±2.109	-0.595	-0.313	0.554
<b>Impulse dyscontrol</b>	18.21±2.455	16.50±2.771	2.520	1.714	0.014*
<b>Lack of Awareness</b>	16.29±2.291	15.94±2.139	0.609	0.348	0.545
<b>Limited Strategies</b>	16.86±2.889	17.00±2.410	-0.209	-0.143	0.835
<b>Lack of Clarity</b>	12.82±1.964	14.88±2.938	-3.135	-2.054	0.003*
<b>DERS TOTAL</b>	94.03±6.82	93.437±7.31	0.328	0.598	0.746

P<0.05 was considered statistically significant.

A meta-analysis by Tamres, et al. has reported that women are more likely to utilize emotional regulation strategies than men [21]. Butler & Nolen Hoeksema in an observational study gave a negative stimulus to both male and female participants and subsequently they were given the choice to choose a task that required either analysis of their emotional states or some non-emotion focused task. It was observed that majority of women focused and analyzed their emotions even in the negative mood state [22]. This could also explain the findings in our current study indicating that men have higher lack of emotional awareness when compared to women but this difference was not statistically significant.

The current study revealed that women had significantly lesser emotional clarity than males. It could be correlated to gender biased roles where men are considered to be more active and agentic due to which they tend to engage themselves more into clear problem-solving and reappraisal techniques that they believe are driving their emotions whereas women utilize more internalized, passive responses to their emotions, such as rumination [21].

Thus, it is observed overall that women tend to use more emotion regulation strategies compared to men that included rumination, acceptance, distraction and seeking social support whereas men are more engaged in emotional avoidance and impulsive behavior [21]. The difference in emotional regulation can be a reason for two to three times higher incidence of affective disorders, anxiety disorders and borderline personality disorder among women, whereas men used alcohol to cope with the stressors [23, 24].

Although the review from past literature reveals that there are conflicting differences in emotional regulation among men and women, it significantly accounts for the gender difference in the type of psychopathology. These differences in engagement, self-perceptions and gender role expectations for emotions would result in different responses to stressful life events and the role of interventions that may vary among the gender groups. Thus, interventions targeting the specific emotional regulation strategies would help to reduce the psychopathology among both the genders [25].

This study had several limitations as it was mainly focused on maladaptive emotional regulation strategies. We need to measure the adaptive strategies equally as the psychopathology is usually based on the dynamic interaction of these both types of emotional regulation strategies. Generalizability of the results is questionable as the study was conducted at a tertiary care centre. Future studies may be done taking into consideration the above, including more samples.

## Conclusion

This study of emotional regulation strategies in general population would help us to understand the most common type of strategies employed by each gender and the dysfunctions associated, based on which necessary interventions can be designed to prevent maladaptation and psychological issues.

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