

Research Article**Depression, Anxiety and Stress Levels among Individuals with Siblings and Individuals without Siblings****Senthil velou. M^{1*}, E. Gnanadesigan. E², Selvam.V.S³, Bethiun. S⁴**¹Associate Professor, ⁴Post Graduate Student, Department of Physiology, ³Clinical Psychologist, Department of Psychiatry; Sri Manakula Vinayagar Medical College and Hospital, Puducherry, India²PhD Scholar, Division of Physiology, Faculty of Medicine, Rajah Muthiah Medical College, Annamalai University, Chidambaram, Tamil Nadu, India***Corresponding author**

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Abstract: The mental health wellbeing of single children has assumed relevance in the face of increasing single child families' world over. This study was done on engineering college students using DASS questionnaire. The Depression, Anxiety and Stress level were assessed among single and non-single individuals. It is a 42-item questionnaire, divided into subscales of 2-5 items with comparable content to measure the negative emotional states. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Mean \pm SD of Depression, Anxiety and Stress level for singles and non-singles were ; Depression-14.9 \pm 9.2 (Normal: 0-9), Anxiety-13.3 \pm 7.3 (Normal: 0-7), Stress-18.8 \pm 7.5 (Normal: 0-14) and 16.9 \pm 8.5, 15.4 \pm 6.8, 22.1 \pm 5.9 respectively, showing that non-single individuals have more of these negative emotional states, even though percentage wise Anxiety and Stress levels were more commonly seen in single individuals and Depression showed no difference. Thus this study we highlighted that single individuals were not having more negative emotional states when compared to non-single individuals.**Keywords:** mental health , Anxiety , Depression, emotional states

INTRODUCTION

Single child families are on increase world over, both in developed nations and developing nations, though the prevalence differs (15% in developed nations and 7% in developing nations). The prevalence rate is especially high in Communist countries like China (27%) and Hungary (21%) [1, 2]. 12.2% of women gave birth to single child in 1984 and this percentage increased to 17.1% in 1994 and the prevalence continues to show an upward trend [3]. Single child families are the units of society where an only child lives with his/her parent/parents. Single child is defined as an individual who was the sole child of his or her parents (living or deceased) who never had another child in their home from birth to young adult hood. The reasons for this increasing trend in single child are decreasing fertility of the couples, increasing age of women at marriage, increasing divorce, increasing cost of living, education and career prospects for women, increasing nuclear families, migration of families to urban areas etc. There is a growing interest in researchers to study the mental well being of single children as studies regarding this issue give contradicting results, while some studies indicating positive effect on mental health of singles,

others project a negative view [4-6]. Studies from China, where single child families are high, indicate that parents of single children usually have great expectations on their single child and they want their ward to excel in studies since they believed that it is critical for their children's success in this increasingly competitive world [7]. More than half of these Chinese parents considered the good school achievement by their only children as the happiest moment in their life and they would punish their children if they failed an exam. Another study found that about 20% of mothers and 10% of fathers of single children spent nearly all their leisure time with the their single child while only 7.2% of mother and 4.8% of fathers of non-single children did so [8]. Apart from their parents' expectations, the single-children they themselves strive hard to make their parents' dream come true as there is no one to fulfill their parents' goals. These attitudes of parents of single children and the children themselves may impose hardship on lives of these children with long term effect on their mental wellbeing. While in this modern society there are many portals of mental pressure available for young people like pressure from parents, teachers, peers, opposite sex, society etc.

studies have not been done to evaluate whether single children undergo more psychological sufferings in terms of depression, anxiety and stress when compared to non-single children, since they are lacking a companion of their age in the form of siblings. Thus this study attempts to elucidate whether single children differ from non-single children in terms of mental wellbeing.

MATERIALS AND METHODS

The study was conducted during the month of April 2014 in the form of questionnaire based cross sectional study to determine the prevalence of single child in our society and to assess the level of depression, anxiety and stress level among single children and non-single children. The study was conducted after securing permission from Research and Ethical committees. First year engineering students of various departments of our sister Institute were recruited after they were apprised about the study. The participation rate was 88.6%. Written permission from the Principal of the sister Institute was taken. Written consent was obtained from each student. A qualified clinical psychologist helped us with administration of questionnaire and clarified students' doubts regarding certain terms in the questionnaire. DASS questionnaire was used for assessing the negative emotional states like depression, anxiety and stress in the subjects. It is a 42-item questionnaire, divided into subscales of 2-5 items with comparable content to measure the negative emotional states. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective

experience of anxious affect. The Stress scale assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. A 4-point severity/frequency scale was used by the respondents to appraise the degree to which they have experienced each state over the past week [9]. In this article we have discussed the depression, anxiety and stress level among single children and non-single children. MS excel sheet was used for entering the data and Epi Info version 7 statistical software was used for analysis. Under Descriptive statistics numerical data were expressed as Mean \pm SD and categorical data were expressed as percent. Under Analytical statistics, Fisher's exact test was used to assess the association between variables and p value was considered statistically significant when it is less than 0.05. Bar diagram was used to express the difference between singles and non-singles in the severity category of depression, anxiety and stress.

RESULTS

Totally 326 participants took part in the study and data of 289 students were finally used for analysis as rest of the data were either incomplete or irrelevant. About half of the participants were females (46%). Their mean age was 18.1 ± 0.33 years with a range of 17 to 20 years. Table 1 compares the depression, anxiety and stress level between single and non-single children. Both the categories showed greater than normal level of these parameters. It is evident from this table that young people of this generation suffer more psychologically in terms of depression, anxiety and stress. It also shows that single children endure less negative psychological emotions.

Table 1: Depression, Anxiety and Stress level (mean \pm SD) among Singles and Non-singles

Sl. No.	Parameter	Singles (n=27) (Mean \pm SD)	Non-Singles (n=262) (Mean \pm SD)
1	Depression (normal range 0-9)	14.9 \pm 9.2	16.9 \pm 8.5
2	Anxiety (normal range 0-7)	13.3 \pm 7.3	15.4 \pm 6.8
3	Stress (normal range 0-14)	18.8 \pm 7.5	22.1 \pm 5.9

Table 2: Depression among Singles and Non-singles

Sl. No.	Parameter	Singles (n=27) (Mean \pm SD)	Non-Singles (n=262) (Mean \pm SD)	Fisher's Exact test
1	Depression present	3	33	P=1
2	Depression absent	24	229	

Table 3: Anxiety among Singles and Non-singles

Sl. No.	Parameter	Singles (n=27) (Mean \pm SD)	Non-Singles (n=262) (Mean \pm SD)	Fisher's Exact test
1	Anxiety present	19	157	P=0.4077
2	Anxiety absent	8	105	

Table 4: Stress among Singles and Non-singles

Sl. No.	Parameter	Singles (n=27) (Mean ±SD)	Non-Singles (n=262) (Mean ±SD)	Fisher's Exact test
1	Stress present	25	204	P=0.0830
2	Stress absent	2	58	

Table 2-4 showed that there is no statistically significant difference between single children and non-single children in terms of negative emotional states,

even though Table 1 showed mild difference between them in terms of mean ±SD.

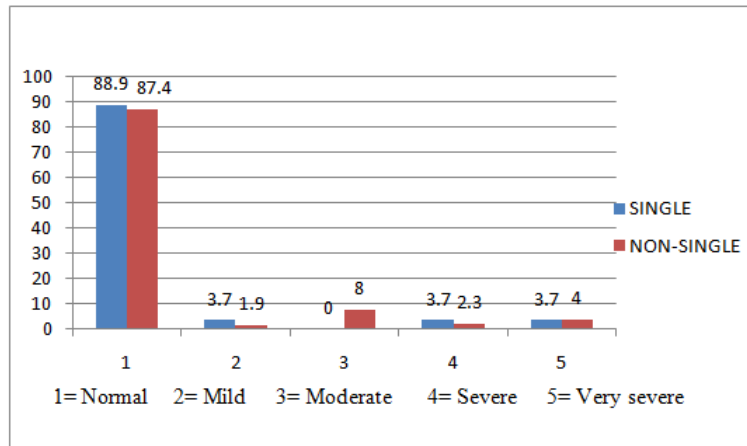


Fig. 1: Percentage distribution of depression among singles and non-singles

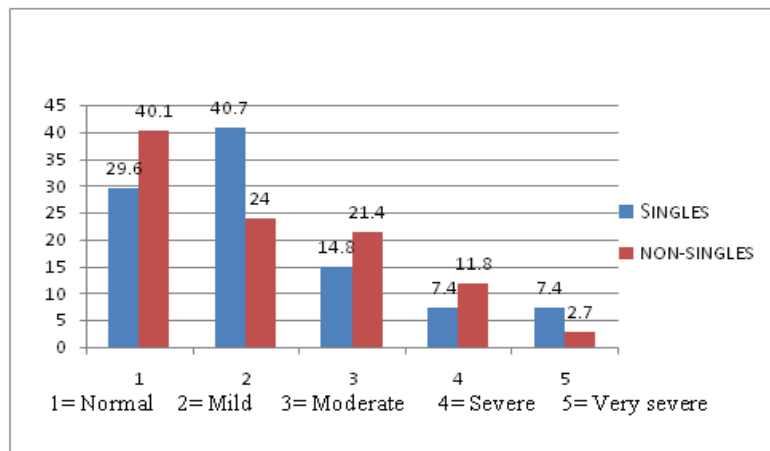


Fig. 2: Percentage distribution of anxiety among singles and non-singles

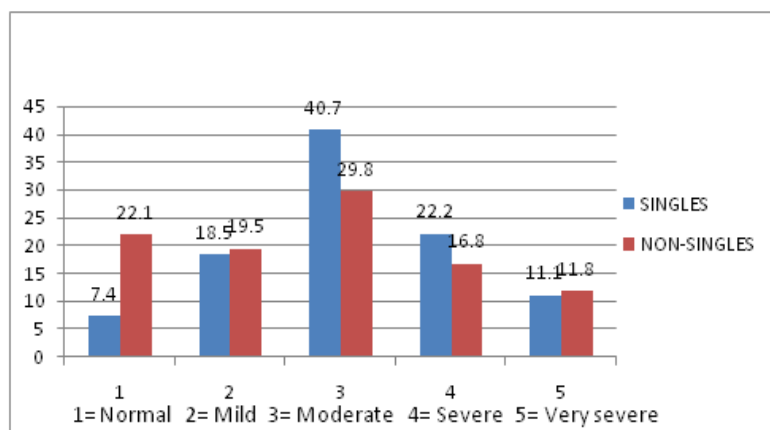


Fig. 3: Percentage distribution of stress among singles and non-singles

By percentage, anxiety and stress level showed minor difference according to fig 2 and 3. Singles have higher level of mild and very severe anxiety levels when compared to non-singles, even though moderate and severe anxiety showed opposite results. Stress level, especially moderate and severe, is elevated marginally in singles when compared to non-singles. These variations seem to be inconsequential as the p value is not significant.

DISCUSSION

Among the three negative mental states, Anxiety and Stress were slightly increased in singles, though they were not statistically significant, as shown by this study. By 2020, these negative mental states will be the second leading cause of disability, according to WHO [10]. Across the age groups, the basic psychological needs of relatedness, in addition to autonomy and competence, must be satisfied so that an individual can experience a sense of growth, integrity and well being [11]. Researchers have provided empirical evidence for the role of fulfilling these fundamental psychological needs in mediating the relationship between attachment and the indices of distress (shame, depression and loneliness) [11, 12]. The mental health wellbeing of young people depends on large part on the quality of relationship that exists in their family. The bonds between parents and children and between siblings are important factors that determine the mental health of young people. The number of people with anxiety is about 5 to 6 times that of people with depression which is in accordance with other studies [13, 14]. Depression is described as a mood disorder where there is emotional, cognitive, motivation and physical component, and associated with psychological, behavioral and physical symptoms [15]. The circumstances that turn on depression in individuals include many, but most important include death or loss of near ones, family breakdown, physical illness and absence of any close relations when one is under a challenging situation where he/she would like to share the worries. But according to this study, percentage of individuals with depression showed no significant difference between single and non-single individuals. Anxiety is a subjective feeling arising out of internal distress with cognitive components like worrying, impaired attention, poor memory and concentration [16]. Stress is the response of the body to demands and it includes not only the body's response to physical and psychological demands, it also encompasses mental, emotional and behavioral responses. The demands may be of larger magnitude like loss of person, property, divorce etc. which happen less often but lesser magnitude demands like deadline at work, examination, interview, pressure in the work place, family hassles etc which occur regularly claims heavily on the body system. Impact of these demands on our health depends mainly on how it is handled. Stress to some extent is helpful in preparing an individual to face a challenge, but more and chronic stress can ultimately result in

psychological and physical ill health. Psychosocial factors, as many researchers have revealed, especially depression, anxiety and stress have a role in the etiopathogenesis of hypertension [17-19] and prevalence of these factors can be taken as predictable index of mental illness in the community [20]. Though this study showed no statistically significant difference between single and non-single individuals in terms of these negative emotional states, the level is increased generally among students similar to other studies [21]. The negative emotional states are not separate entity as perceived stress is linked with increased levels of depression [21-23]. The presence of one state increases the likelihood of the other in the same person as shown by study where disturbance of the stress system with hyper secretion of cortisol exposed the cognitive and emotional disturbances in susceptible individuals which are similar to some of the symptoms that are noticed in patients with depression [24].

CONCLUSION

There are many identified causes of negative emotional states among college students, but absence of siblings may not be considered as a factor in the pathogenesis of these states.

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