

## Association between Psychological Well-Being and Gender: A study among College Students from central India

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### Abstract

**Context:** Psychological well-being (PWB) is affected by physical health, personality, life experiences, gender, socioeconomic status, and culture. Gender is an important social determinant of health and gender-based analysis is necessary to rectify women's and men's health and health care. **Aims:** The purpose of this study was to assess the psychological well-being of college students and to determine the significant gender differences and association with regard to psychological well-being aspects. **Settings and Design:** This cross-sectional study was conducted among 250 college students selected by simple random sampling. **Methods and Material:** The Ryff's PWB Scale, 42-item version used for assessment of PWB and data were collected by self-administering questionnaire. Internal consistency of the scales was estimated and descriptive statistics, independent samples t-test, regression analysis was done. **Results:** A total of 243 students' questionnaire were analyzed. The mean age of the participants was 19.33 ±1.77 years, and 72% of participants were male. Cronbach's alpha coefficient for internal consistency of Ryff's PWB scale was 0.832 in this study. The mean of PWB is 197 ±20.67 and female reached a higher score in all the parameters of PWB than male, differences were (t=4.76, P < 0.001) significant. Simple linear regression showed that gender was a highly significant (P < 0.001) predictor of PWB. **Conclusions:** The females had a better psychological well-being in terms of all dimensions rather than males. It suggests that there was difference in term of psychological well-being for those male and female respondents.

**Keywords:** Psychological well-being; PWB; Gender; College students; simple linear regression analysis.

**Key Messages:** Indicative of lower PWB score among males rather than in females. So, there should be emphasis on the male mental status for the productivity of life and community.

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### Introduction

The concept of well-being is very dynamic and has been divided into various categories likewise, physical well-being, psychological well-being, social wellbeing, economic well-being, and spiritual well-being. In general terms, well-being means to be gratified, be happy, healthy, prosperous and it refers to an experience of having optimal psychological function[1]. Psychological well-being (PWB) is imperative, being taken into consideration. It is multi-dimensional as there are many aspects lying in such as, confidence, self-control, anxiety and loneliness, contentment, affect, happiness, adjustment, subjective wellbeing, capable, well-supported, satisfied with professional and personal life[2-4]. Moreover, psychological well-being is a subjective term that altogether has a different meaning to different individuals. Therefore, Ryff's model is the most important model, explains the domain of psychological well-being.

It recognizes that, the psychological well-being is a holistic developmental process which is spreading over the period. Regarding this, Carol Ryff suggested that it includes six dimensions, which are Self-acceptance (positive self-evaluation and positive evaluation of life), Positive Relations (high-quality and satisfactory interpersonal relations), Autonomy (sense of self-determination), Environmental Mastery (ability to manage the one's life and the surrounding world), Purpose in Life (belief that one's life is useful and that life is meaningful), and Personal Growth (a sense of growth and development as person). In addition, she claims that psychological well-being is a critical element of faith which gives a sense of purpose and meaning in life; he also stated that specific objectives of life, purposes and intentions and having a sense of direction and orientation all are associated with the feeling[5,6]. It is well-documented that PWB is affected by physical health, personality, life experiences, gender, socioeconomic status, and culture. Gender differences are more of interest to many scholars to conceptualize PWB as the literature suggested that there are contradictory findings about the role of gender on various components of psychological well-being aspects. Moreover, gender is an important social determinant of health and gender-based analysis is necessary to rectify women's and men's health and health care. In terms of mental

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health, it reveals out the consistent differences between males and females. Usually, it was seen that women were more of into internalizing disorders, such as depression and psychological distress, while men have, more frequently associated with an externalizing disorder, such as antisocial and substance use disorders[7-11].

The study of differences associated with gender is an important and repetitive issue in several areas of psychological research, such as logical and mathematical reasoning, cognitive styles, general intelligence, personality, moral reasoning, empathy and prosocial behaviour, being an area of difficult and controversial research. Moreover, concerning PWB, gender differences been more important in psychological well-being as of many efforts being made in contemporary society to empower all individuals to achieve self-actualization and utilize their full potential[12-15]. Furthermore, literature also shown significant differences between women and men in some psychological well-being dimensions[16,17,18,19] which got an impact on other factors such as age, culture, or roles played[16,20]. Due to the inconclusive results of the previous studies, it is interesting to analyze the gender-specific variations on well-being, to provide new empirical information and explain the diversity, or at least provide some hypotheses for future studies for the same[16-20]. Therefore, in view of the above, this study was aimed to assess the psychological well-being of college students and to determine the significant gender differences and association with regard to psychological well-being aspects.

#### Methodology

This cross-sectional study was conducted among the college students of Jabalpur, Madhya Pradesh, India. The respondents of the present study were 250 students which selected by simple random sampling. The data were collected by self-administering the questionnaire to the students which consisted of two parts. The first part recorded the baseline information including age and sex. The second part was the Ryff's psychological well-being Scale[5]. In this study, 42 item version Ryff's psychological well-being scale was used to measure students' PWB[5,21,22].

Ryff's PWB scale consisted of six dimensions of PWB subscale with seven items each including: (1) Autonomy - a sense of self determination, independence, and freedom from norms, (2) Environmental mastery - the ability to manage life and one's surroundings, (3) Personal growth -being open to new experiences as well as having continued personal growth, (4) Positive relations with others- satisfying relationships with others, (5) Purpose in life- having life goals and a belief that one's life is meaningful, and (6) Self-acceptance - a positive attitude toward oneself and one's past life[5,23,24,25]. Each subscale consists of 7 items divided between

positive and negative items. In 42 item version scale, twenty PWB items were positively worded and 22 negatively worded. Before analysis, negatively worded items were reverse scored so that high values indicated well-being as suggested in Ryff's PWB scale[5]. For each item, the responses to the questions were based on a scale ranging from one to seven: strongly disagree (1), slightly disagree (2), disagree (3), neutral (4), agree (5), slightly agree (6), and strongly agree (7)[5,26,27]. Higher scores mean greater psychological well-being status of students. A total PWB score was calculated by adding all items of six dimensions.

The informed consent was taken from all the students and purpose of the study was also explained to the students. The students were asked not to put their personal information on questionnaires. Those students who were not willing to participate in study were excluded. Permission was obtained from the heads of the respective colleges. The study was approved by the institutional ethical committee of Netaji Subhash Chandra Bose Medical College, Jabalpur MP.

#### Statistical analysis

Data were analyzed using the statistical package for the social science (IBM SPSS Statistics 20) software (version 20.0). Cronbach's Alpha ( $\alpha$ ) Coefficient which is a measure of Internal Consistency of scale was estimated[28,29]. Descriptive statistics was analysed and Independent Samples T-test was used to compare PWB of different gender groups. Regression analysis for the prediction of PWB of Students with independent variable as Gender and dependent variable as PWB and dimensions of PWB. Statistically  $p < 0.05$  was considered as significant.

#### Results

Among 250 students participate in study, filled questionnaires during data collection, 243 were included in statistical analysis and remaining were excluded from the study, because of being incompletely filled questionnaires. Out of 243 participants, a majority (81%) of students belonged to age group between 15-20 years and 18.9% belong to 21-25 year of age. The mean age and SD of the participants were  $19.33 \pm 1.77$  years. A majority (72%) of participants were male. The Cronbach's alpha ( $\alpha$ ) coefficient of internal consistency for Ryff's PWB scales in present study was 0.832, which is  $> 0.8$  indicating good internal consistency.

#### Mean and standard deviation of psychological well-being

Table 1 represents the mean and standard deviation of all the six dimensions of the psychological well-being. Overall mean and SD of PWB is  $197 \pm 20.67$  and highest mean was seen in personal growth followed by purpose of life

**Table 1: Descriptive statistics of psychological well-being, and dimensions of psychological well-being (n=243)**

Scale	Mean $\pm$ SD
PWB	197.55 $\pm$ 20.67
Autonomy	32.51 $\pm$ 4.58
Environmental mastery	31.28 $\pm$ 4.40
Personal growth	34.47 $\pm$ 4.57
Positive relations	32.71 $\pm$ 4.45
Purpose in life	33.49 $\pm$ 5.37
Self-acceptance	32.84 $\pm$ 4.01

SD: Standard deviation; PWB: Psychological well-being

#### Gender specific differences in Psychological Well-Being

Female reached a higher score in all the parameters of PWB than male, and differences were significant in PWB, Autonomy, Environmental Mastery, Personal Growth, Positive-relation, Purpose in Life, and Self-acceptance (Table 2).

**Table 2: Gender Differences in Psychological Well-being (n=243)**

Variables	Gender	Mean	SD	SEM	t Value	p Value
PWB	Male	193.77	20.15	1.52	4.76	0.001
	female	207.26	18.88	2.29		
Autonomy	Male	31.91	4.69	0.35	3.37	0.001
	female	34.07	3.93	0.48		
Environmental mastery	Male	30.81	4.12	0.31	2.69	0.008
	female	32.49	4.88	0.59		
Personal growth	Male	33.96	4.29	0.32	2.82	0.005
	female	35.78	5.06	0.61		
Positive relations	Male	31.99	4.73	0.36	4.13	0.001
	female	34.54	2.97	0.36		
Purpose in life	Male	32.52	5.66	0.43	4.72	0.001
	female	36.00	3.50	0.42		
Self-acceptance	Male	32.28	3.90	0.30	3.56	0.001
	female	34.28	3.96	0.48		

PWB: Psychological well-being; SD: Standard deviation; SEM: Standard error of Mean

**Predictive role of Gender on psychological well-being**

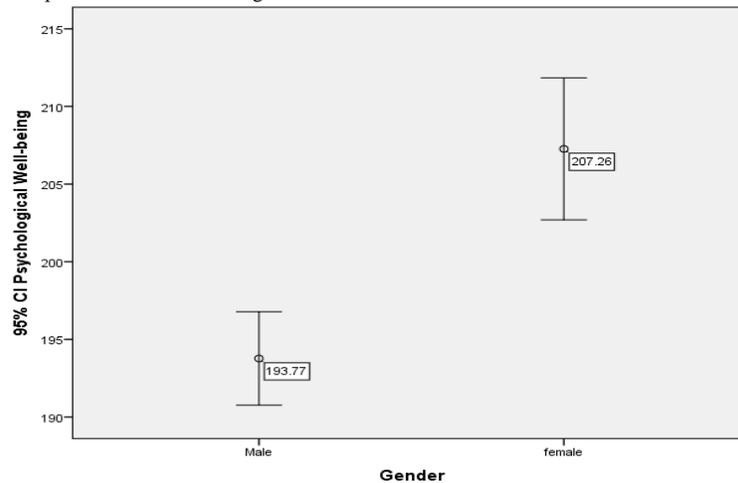
Simple linear regression analysis with gender as predictor variable and PWB as dependent variable [Table 3] showed that gender was a highly significant predictor of PWB,  $R^2 = 0.086$ ,  $F = 22.734$ ,  $P < 0.000$ , accounting for 9% ( $\eta^2 = .294$ ,  $p < 0.000$ ) of the variance in PWB. The results of regression analysis (Table 3) show that gender can cause (1) 4.5% of the variance of autonomy,  $R^2 = 0.045$ ,  $F = 11.393$ ,  $P < 0.001$ ; (2) 3.0% of the variance of environmental mastery,  $R^2 = 0.029$ ,  $F = 7.28$ ,  $P < 0.008$ ; (3) 3.2% of the variance of personal growth,  $R^2 = 0.032$ ,  $F = 7.953$ ,  $P < 0.005$ ; (4) 7.0% of the variance of positive relations,  $R^2 = 0.066$ ,  $F = 17.128$ ,  $P < 0.000$ ; (5) 9.0% of the variance of purpose in life,  $R^2 = 0.085$ ,  $F = 22.341$ ,  $P < 0.000$ ; and (6) 5.0% of the variance of self-acceptance,  $R^2 = 0.050$ ,  $F = 12.741$ ,  $P < 0.000$ . On the basis of the interpretation of the results of regression analysis, revealed that gender was significant predictor of PWB and different dimensions PWB of students. The Beta coefficient was particularly high for PWB, followed by Purpose in Life, positive relation and Self- acceptance.

**Table 3: Summary of simple linear regression analysis for the prediction of PWB of Students with independent variable as Gender while dependent variable as PWB and dimensions of PWB (n=243)**

Dependent Variables	R	R <sup>2</sup>	B	SEB	Beta	F	Sig.
PWB	0.294	.086	13.490	2.830	.294	22.734	.000
Autonomy	0.212	.045	2.160	0.641	.212	11.393	.001
Environmental mastery	0.171	.029	1.674	0.621	.171	7.268	.008
Personal growth	0.179	.032	1.819	0.645	.179	7.953	.005
Positive relations	0.258	.066	2.550	0.616	.258	17.128	.000
Purpose in life	0.291	.085	3.480	0.736	.291	22.341	.000
Self-acceptance	0.224	.050	1.999	0.560	.224	12.741	.000

Predicting variable: Gender; PWB: Psychological well-being; B: Unstandardized coefficients; SEB: Standard error of B

**Fig. 1** is showing the comparison of the mean scores (with 95%CI) in male and female in respect with psychological well-being. It represents highest mean score in females (ranging from 203-212) than in males (ranging from 192-197). It means that there is no overlapping between the two lines of the charting, which represents that there is a significant difference in the PWB in relation to Gender.



**Fig 1: Mean difference of gender concerning psychological well-being**

### Discussion

The main aim of this study was to investigate the influence of gender on the college students' psychological well-being conducted in Jabalpur, Madhya Pradesh. As analyzed and reported, the results revealed that the level of psychological well-being was on a higher level among college students. Nevertheless, the dimension with the highest mean score was personal growth, followed by purpose in life, positive relations with others, self-acceptance, autonomy, and environmental mastery. In this study context, college students constantly deal with the challenges and are able to experience and attain a higher level of personal growth. Therefore, the purpose of this study was to analyze the relevance of gender to the psychological well-being of college going individuals.

It could be explained as in college students, they are more prone to go under great psychological pressure due to several reasons such as physical development, gender differences, identity crisis, emotionalism, and fear of new responsibility or failure in obtaining jobs. These factors cause them to develop as individuals who are very vulnerable to psychological trauma[26,30].

This study illustrates that psychological well-being in the females was better than in males, and showed statistically significant difference in relation to psychological well-being between male and female. In parallel with this research, few studies confirmed that girls are much better than boys in terms of their psychological well-being[3,31,32]. In the present study, all the dimensions of the psychological well-being showed higher scores in females and statistically significant as compared to males. Nevertheless, in one of the researches, there was significant difference found between male and female in some of the psychological well-being dimensions, with male scoring higher than female in self-acceptance and autonomy, and with female scoring higher than male in personal growth and positive relations with others[33].

Another study explained the parallel findings, that there are gender differences in terms of autonomy, positive relations with others and purpose in life[34]. However, this finding contradicts the findings of a study by Salleh N which revealed that there was no difference between male and female toward of autonomy, positive relations with others, purpose in life and also for other dimensions of psychological well-being[35].

In summary, we stated that, female scored significantly higher than male in PWB, Personal Growth, Purpose in Life, and -contrary to other studies- in Positive relations, autonomy and Environmental Mastery. Possibly, the females of current generation have a greater conscience of their possibilities and potentials than past generations, and appraise themselves as competent and competing in a society traditionally dominated by men. Certain aspects of women related to their psychological well-being emerges strongly, remarkably those in men[36].

### Conclusion

The results of the present study illustrated that female had a better psychological well-being in terms of all dimensions rather than males, and also suggested some issues for future research, for example, to deepen on the conceptual and relations between gender and PWB, to analyze the role of the cultural rules and standards on gender differences in PWB, and to analyze the impact that social changes have towards gender equality on the psychological well-being of women and men.

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