

Determinants of Objective and Subjective Wellbeing of Working and Non-Working Women: A Case Study of Rawalpindi, Punjab, Pakistan

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Abstract

The study endeavors to measure the objective and subjective well-being of women and analyze its determinants using primary data collected through a questionnaire from 500 working and non-working women from Rawalpindi, Punjab. The subjective well-being is measured through ten-point scale on life-satisfaction and through an index based on happy pulse indicators. While, the objective wellbeing is based on quantifiable measures including income, assets, residence, education, health, safety and security, and social networking. The analysis is done with the help of descriptive, distributional and inferential statistics. The determinants of women's well-being are estimated using the Ordinary Least Squares and Ordered Probit estimation techniques. Overall, results show higher women empowerment of working women than non-working women. Regarding wellbeing indices, women are slightly better in terms of subjective wellbeing than objective ones. The married and aged working women with good health conditions and financially sound family background are more satisfied from their lives. The results call for improving women's wellbeing and their empowerment through making them financially resilient and providing them with good health facilities.

Keywords: Life Satisfaction, Happy Pulse Indicators, Ordered Probit

JEL Codes: I31; D10

1. Introduction

Empowering women on socio-economic and political front is vital for the sustainable development of Pakistan. The role of women is not confined within the boundaries of their homes rather it extends towards the society as a whole. The gender-balanced approach to access of education, health and decision-making can promise a better future to our generations. Both the Millennium Development Goals and Sustainable Development Goals by UNDP has one major goal emphasizing on

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promoting gender equality and women empowerment (Mahmud, et al., 2011). However, Pakistan has not yet achieved these goals owing to a number of institutional factors and the shifting role of organizations in the adoption and implementation of the Program, on the one hand, and the lack of accessible resources to marginalized women, on the other (Kyei-Nimakoh, et al., 2016). Hence, the socio-economic well-being of women has remained vulnerable due to financial exclusion, poor health conditions, lack of access to education, patriarchal system of the country and the unawareness of women's rights. Fundamentally, the social norms and culture of Pakistan are adapted from the patriarchal system, and women's status specifically concerning well-being predominantly hinges on their relative position in the society (Kyei-Nimakoh, et al., 2016). The concept of well-being has long been referred to as the healthy and satisfactory lives of people. Alartartseva and Barysheva (2014) provided a comprehensive definition of well-being as:

“1) a human exists in accord with their nature; 2) if they understand (are conscious of) what are good things of life for them and have an opportunity and intention to achieve these good things; 3) if they have an opportunity to realize their potential as human beings; 4) if the society constituting the grounds of the state creates conditions and provides opportunities for them ...”. pp: 36

Two alternative approaches are focused for measuring well-being in the existing literature: the objective and the subjective. The subjective approach incorporates the realization of women being ‘human’ and ‘happy’ while the objective approach targets the quantifiable measures of satisfactory life in terms of better access to resources that empower women in decision-making. The quest for well-being is rendered as one of the vital aims of every human and an essential objective in every society. The well-being of every individual is important regardless of its gender, but women's well-being is a key to sustainable development. Women not only play a dynamic role in the development of any society but also women's well-being has multifaceted outcomes. The responsibility of the next generation prominently pivots around them and the brought-up of children as responsible citizens can only be achieved if supported by well-educated, well-trained, satisfied, and healthy women (Voukelatou, et al., 2021).

It is widely believed that financially empowered women actively participate in the household decision making that ultimately leads toward their overall wellbeing. Women mostly experience poverty due to unequal division of labor and

a lack of control over economic resources. According to Innovations for Poverty Action Report 2017, “*women often have limited opportunities for educational attainment, employment, asset and land ownership, inheritance, and control over their financial futures in general.*” This necessitates the need for promotion of well-being for women specifically.

UNDP (2023) gauges the gender specific level of development through the Gender-Development Index (GDI) which provides evidence on how far females are lagging behind their male counterparts. GDI is the gender-disaggregated Human Development Index (HDI) defined as the ratio of female to male HDI. The GDI measures gender inequalities from three dimensions: health, which is measured by life expectancy at birth, education, measured by expected years of schooling of children and mean years of schooling of adults and economic resources, measured by Gross National Income (GNI) per capita. The GDI is calculated for 164 countries and Pakistan is ranked at 147. The female HDI value for Pakistan in 2022 is 0.480 in contrast with 0.575 for males, resulting in a GDI value of 0.834 which is relatively unfavorable for females compared to other developing countries.

Hence, the idea of women’s wellbeing is more important in the case of Pakistan which has been facing the issue of gender inequality in various spheres and the data has not shown an encouraging picture in this regard (UN Women, 2018). According to Global Gender Gap Report (2023) by World Economic Forum, Pakistan is ranked 142 among 146 countries with 57.5 percent gender parity. According to the United Nations Report 2018, 4.9 million women aged 18 to 49 in Pakistan are simultaneously deprived in four dimensions of SDGs including child marriages, education, healthcare and employment. Emphasizing on the link between deprivation and wellbeing, the report stresses the need for policy action. However, there is lack of thorough study on the state and determinants of objective and subjective wellbeing of women in Pakistan that could be utilized as a starting point for the organized and well documented policy plan. Rawalpindi is one of the major metropolitan areas in Pakistan with 48% of female population and is expected to disclose variations in the wellbeing of women from various aspects. The proposed study can provide a better picture of women wellbeing both subjective and objective that will enable us to put forth some policy suggestions to tackle the hindrances in the way of women wellbeing.

1.1 Objectives of the Study

The purpose of this study is to analyze the factors determining the objective and subjective wellbeing of women located in Rawalpindi, Punjab. This study is based on the primary data collected through purposive convenient sampling

technique of non-probability sampling from working and non-working women, 250 each, aged 20-60 years from various areas of Rawalpindi.

The key objectives of the study are given as:

- to measure women's objective and subjective wellbeing in Rawalpindi
- to compare the objective and subjective wellbeing of working and non-working women
- to analyze the role of different socio-demographic factors in determining objective and subjective wellbeing of women
- to estimate the role of women empowerment in women's wellbeing

1.2 Organization of the Study

Rest of the study is organized as follows. Section II provides the review of relevant literature. Section III presents the methodology used in the research. Section IV reports and discusses the empirical findings based on descriptive statistics, distributional characteristics and regression. Last section concludes the study with some policy suggestions.

2. Review of Literature

Women are an integral part of any society as they not only represent half of the population but are also an active proportion of the labor force. The diverse roles played by women in a society require strength and resilience on multiple fronts, including, physical, emotional, and financial aspects (Verbrugge, 1983). Notwithstanding, in developing countries like Pakistan, women face various socio-economic problems which not only restrict their participation in economic activity but also hinder their social contribution.

2.1 Evidence from the World

Generally, existing literature focuses on three different aspects of well-being: *evaluative well-being* which demonstrates life satisfaction, *hedonic well-being* that relates the psychological feeling of happiness, sadness, and stress and *eudemonic well-being* that reflects the personal feeling of being human and purposeful in life (McMahan, 2011); Diener et al., 1998); Biswas-Diener et al., 2009); Ryan and Deci, 2001).

There are several determinants of well-being which have been investigated by the literature. McMahan et al., (2011) have used three different scales to measure different dimensions of well-being. For instance, Satisfaction with Life Scale

(SWLS) to measure domain-general life satisfaction; the Intensity and Time Affect Scale (ITAS) to measure positive and negative affect, and the Subjective Vitality Scale (SVS) was used to measure feelings of mental and physical vitality, aliveness, and vigour. Moreover, the Meaning in Life Questionnaire-Presence Subscale (MLQ-P) is employed to identify the degree to which respondents feel their lives as meaningful. The findings of the study reflect that both hedonic and eudemonic dimensions are important for well-being.

A recent study by Qasim and Grime (2018) analyzed the relationship between subjective well-being and adjusted net savings (a measure of economic sustainability) by controlling initial level of subjective well-being. The research is based on the World Values Survey data of self-reported life satisfaction. The results provided negatively significant effect of net savings on the wellbeing in the short run while the relationship appeared to be neutralized in the long run implying that the current generation's well-being can be compromised due to high net savings at present. However, an infinite future can benefit from the net savings.

In another study by Kaplan et al. (2008), different measures of income and psychological well-being of adults are provided. The study reports that multiple income sources and increase in income increases the psychological well-being. In addition, gender, ethnicity, and health condition also have important implications for the well-being. In another study, Vieira (2011) explained that female economic, political and social rights increase the happiness level of women. Their conclusion is based on the sample of 80 countries. Moreover, the study also reports that women are happier than men in developing countries while the opposite holds for developed countries.

Generally, literature based on the comparison of happiness/well-being levels for men and women is inconclusive. For instance, Argyle (1987) provided the evidence of small difference in the life satisfaction levels of men and women. On the other hand, Mroczek and Kolarz (1998) concluded that women are far less happy than men across all age groups whereas Nolen-Hoeksema and Rusting (1999) have shown that women are reported to be happier than men. Matteucci and Vieira Lima (2014) regarded gender as instrumental in explaining well-being. In addition, socio economic factors such as working status, income, working hours, day care facility at work, and number of family members have differential impact on the wellbeing of men and women. Moreover, the study concluded that women are adversely affected by ageing as compared to men.

Zweig (2015) argued that various socio-economic inequalities in the society may lead towards differences in wellbeing of men and women. The empirical

analysis of the study indicates that with same socio-economic conditions, women are either happier than men or there is negligible difference in the happiness among men and women.

2.2 Evidence from Pakistan

The evidence from Pakistan mostly focuses on women empowerment and labor force participation. To begin with, Jalal-ud-Din and Khan (2008) deliberated on women's status in district Mardan and confirmed that the worse socio-economic status of women than men. They regarded illiteracy, lack of access to education, safety at job place and awareness of their rights as binding constraints for women's betterment. Similarly, Faridi et al., (2009) considered educational attainment as a major factor for active female participation in the labor force. Chaudhry and Nosheen (2009) calculated the cumulative index of women empowerment for Southern Punjab of Pakistan using indicators of socio-economic decision making and personal and political autonomy. The study provided socio-cultural norms of the society, education, access to media and labor force participation as major determinants of women empowerment. In another study, Ashraf and Ali (2018) investigated the effect of socio-economic well-being on women's status in Pakistan for the time period 1980-2014. Authors also constructed a comprehensive index using social, economic and political status of women. The findings based on time series techniques have shown that globalization has negatively and significantly affected women's status. While the human development index and secondary school education have positively significant effect on the status of women. However, financial development has no significant impact.

Haq and Zia (2013) measured the objective and subjective well-being of household by using the data from Pakistan Social and Living Standards Measurement Survey (2006-07). The study has used education, health, living conditions and economic status to measure well-being through Principal Component Analysis (PCA). The findings illustrated the importance of all domains in determining the subjective as well as objective well-being. Moreover, the study reported large variations in the subjective well-being among selected districts of Pakistan. Similarly, Tausch et al. (2009) have used PCA for measuring different indices of well-being and concluded that multidimensional determinants have significant and positive impact on well-being.

Overall, vast literature is available on the determinants of happiness but not on the objective/subjective wellbeing and life satisfaction of women, specifically for Pakistan. The existing gap in available literature regarding analysis of the determinants of objective and subjective well-being of women in Punjab, Pakistan

is being covered by our study. Besides, earlier studies have predominantly used macro data. Analysis on the measurement of women empowerment and its impact on women's well-being using micro data is still lacking. Our study utilizes primary data at micro level and is multifaceted incorporating all relevant measures to analyze both women empowerment and objective and subjective well-being of women.

3. Methodology

The study is based on the primary data that was collected from 500 women through detailed survey questionnaire administered in Rawalpindi, Punjab.⁴ The sample is equally divided between working and non-working women (250 each) either married or unmarried, between age 20-60 years. Initially, a pilot survey was conducted for testing the accuracy of the questionnaire and finalized according to the responses that improved the quality of questionnaire. Besides being self-employed, the selected working women belong to the professions of teaching, banking, administration and medical. The BPS scale of employees was selected at grade 10 and above in the public sector. The sample was selected using the purposive convenient sampling technique of non-probability sampling.

The objective wellbeing is measured by encompassing factors such as household income, household utilities, health condition, and personal monthly expenditures. An index of objective wellbeing is constructed using the Principal Component Analysis (PCA) on aforementioned variables. Principal component analysis (PCA) is an arithmetic procedure that change a set of observations of linked variables into linearly uncorrelated variables termed as principal components. The number of Principal Components may be less than or equal to the number of original variables. The Principal Component is calculated as eigenvectors which, are orthogonal among each other and, hence, uncorrelated. The implication of each eigenvector is stated as its Eigen value. A large number of studies have used PCA in calculation of different objective wellbeing measures (see Schueller and Seligman, 2010). As far as sample size is concerned, Comrey and Lee (1992) rendered a sample size of 300 as good for the use of PCA and 500 as very good.

The subjective wellbeing is measured through two alternate measures for robustness. One is self-reported life satisfaction index on 10-point scale and secondly by the mean of indicators adopted from the idea of 'Happy Pulse' developed by the Project 'Happy City' based in Bristol, UK. Happy pulse is the

⁴ The questionnaire is available on request.

questionnaire designed to measure the personal wellbeing of individuals across three dimensions of ‘Be’, ‘Do’ and ‘Connect’ which are linked with mental and emotional, behavioral and social wellbeing, respectively. ‘Be’ encapsulate questions of what people think and how they feel about their lives and ‘Do’ includes actions which they do to have better lives, while ‘connect’ encompasses their networking with other people and organizations (Hiscock et al., 2016). The questions related to these satisfactions are included in the questionnaire.

Further, data processing and statistical analysis is done using STATA. Initial analysis is comprised of uni-variate analysis including descriptive statistics and frequency distributions. While the bivariate analysis is conducted using the cross-tabulations in which relationship of socio-economic and demographic variables with subjective and objective well-being is analyzed. Furthermore, multivariate analysis on the determinants of objective and subjective well-being is carried out through the following model separately estimated for the objective and subjective wellbeing:

$$WB_i = \alpha_0 + \alpha_1 \text{lage}_i + \alpha_2 IR_i + \alpha_3 HHS_i + \alpha_4 WEI_i + \beta_k \Sigma D_i + \varepsilon_i \quad (1)$$

Where, WB_i refers to the well-being, lage_i is log of the age, IR_i refers to the importance of religion, HHS_i stands for household size (no. of family members) and ΣD_i represents dummy variables for marital and employment status, family type, religion, children, income, assets, residence status, health condition, and recreational activities. WEI_i indicates women empowerment index which is measured by PCA based on women’s education, employment status, possessions of valuables including commercial and non-commercial property, agriculture and non-agriculture land, jewelry etc., and woman’s decision-making powers regarding education, health, marriage, daily household purchases, large household purchases. ε_i is the error term.⁵ Equation (1) is estimated by using Ordinary Least Square (OLS) technique for analyzing the determinants of objective wellbeing and using both ordered Probit and OLS for estimating the determinants of subjective wellbeing depending on its type of measure.

The study is expected to identify significant factors contributing towards the wellbeing of women in Pakistan. Therefore, the direct beneficiaries of the paper are women; whereas the indirect benefit will be extended to the children and households whose welfare depends on women’s wellbeing. This is anticipated that the objective and subjective wellbeing will appear to have close connection and

⁵ The variable age^2 was used in the regression but appeared as insignificant and dropped from the model to keep the results robust.

more economically empowered women are expected to have high level of well-being along with standing at the better socio-economic conditions. Besides, the subjective and objective well-being is expected to be higher for the working women as compared to non-working due to better access to resources. The study can suggest a number of policy measures by identifying significant factors that can be promoted to empower women and their well-being for a sustainable society ahead.

4. Empirical Findings and Discussions

The findings are presented in three steps. At first, the descriptive analysis is conducted to understand the dynamics of the sample. Secondly, the distribution of well-being across different socio-economic and demographic variables is explained through cross tabulation based on χ^2 test statistics. Finally, the empirical analysis for objective and subjective wellbeing is carried out, referencing equation (1).

4.1 Summary Statistics

Table 1. Frequency Distribution of Categorical Variables

Variable/Categories	Frequency	Percentage	Variable/Categories	Frequency	Percentage
Religion			Spending Leisure time		
Islam	491	98.6	Inside activities	416	97
Christianity	7	1.4	Outside activities	13	3
Total	498	100	Total	429	100
Importance of Religion			Health Condition of the Respondent		
Very important	433	86.6	Very poor	3	0.6
Important	60	12	Poor	13	2.6
Somewhat important	5	1	Average	166	33.2
Not at all important	2	0.4	Good	245	49
Total	500	100	Very Good	73	14.6
Family Type			Total	500	100
Nuclear	303	60.8	Any Chronic Health problem		
Joint	195	39.2	Yes	116	22.8
Total	498	100	No	386	77.2
Physical Disability			Total	500	100
Yes	10	2	Employment Status		
No	490	98	Working	252	49.6
Total	500	100	Not working	248	50.4
Marital Status			Total	500	100
Single	173	34.6	Income of the household		
Married	297	59.4	Less than equal to 50,000 rupees	98	19.7
Divorced	8	1.6	51,000 to 100,000	189	38.0
Widow	22	4.4	Above 100,000	211	42.4
Total	500	100	Total	498	100

Source: Authors' own calculation

The study has classified well-being into two categories, namely objective well-being and subjective well-being. The objective well-being is computed by employing principal component analysis technique based on women’s household income, personal expenditures, health conditions, and various aspects of household’s living conditions such as material used for walls, roofs, source of drinking water, sources of cooking fuel, lighting, and type of toilet facilities available at home. The subjective wellbeing is further assessed through two distinct measures. First, the self-reported score (1 to 10) by the respondents on overall life satisfaction. Second, an average of multiple indicators about usefulness of life and social networking such as feelings on things you do in your life are worthwhile, optimistic about the future, being useful, feeling relaxed, dealing with problems well, thinking clearly, able to make mind about things, feeling close to other people and participation in social activities. The summary statistics are presented in Table 1 explaining the frequency distribution of categorical variables and Table 2 detailing the descriptive statistics of numerical variables.

Table 1 identifies that the majority of respondents are Muslims and they regarded religion as most important in their lives. Moreover, as per the self-reported scores, our sample is comprised of the women with overall good health conditions and with low number of chronic health problems. Regarding the living standard, the income of working women is above average, and majority belongs to the households with income Rs. 50,000 and above. Moreover, the women in the representative sample prefer to have recreational activities within their homes.

Table 2. Descriptive Statistics of Continuous Variables

Variables	Observations	Mean	Standard Deviation	Minimum	Maximum
Household Size	499	6	3	2	20
Education	499	15.6	3.6	0	25
Age	500	34.8	10.2	20	60
Years of marriage	315	14.5	11.1	0	47
No. of children	257	3	1	1	10
No. of girls	257	2	1	0	6
Satisfaction with financial situation of household	499	7.1	2	1	10
Average monthly personal expenditures (rupees)	478	21,480	25,340	1000	350000
Satisfaction with own financial situation	498	7.3	2.1	1	10
Monthly health expenditures	328	6200	9555	0	70000
Women empowerment index	486	0.515	0.191	0	1
Objective wellbeing	496	0.350	0.120	0	1
Subjective Overall Life Wellbeing Satisfaction	499	7.1	2.0	1	10
Mean Life Satisfaction	495	3.48	0.65	1.2	4.9

Source: Authors’ own calculation.

Table 2 provides the descriptive statistics of continuous variables. The average age of respondents is 35 years. The mean year of completed schooling is 15 which highlights high educational qualification of the respondents. It is pertinent to mention that Rawalpindi is a metropolitan city with good living standard of residents along with 70% literacy rate. According to the scale of satisfaction, majority are satisfied both with financial status of household and own financial conditions as mean value of satisfaction is marked at 7.1 and 7.3, respectively that is closer to the maximum satisfaction value i.e. 10. The average monthly personal expenditures of women are 21,480 rupees as calculated from the data which reflects economically stable status of selected women. This is interesting to note that self-reported score of wellbeing shows higher level of satisfaction as compared to the computed score of wellbeing based on various economic, social and demographic features provides. In other words, subjective wellbeing of women (0.5) appears higher than the objective wellbeing (0.350).

Next, women empowerment index is computed by using principal component analysis based on certain indicators of women's empowerment. For instance, women's education, their employment status, possessions of valuables including commercial and non-commercial property, agriculture and non-agriculture land, jewelry etc., and woman's decision-making powers regarding education, health, marriage, daily household purchases, and large household purchases. Principal component analysis extracted two factors from these indicators based on criteria of minimum Eigen value of 1 and satisfied the value of KMO measure of sample adequacy around 0.7. Based on these components women's empowerment index is calculated and standardized women's empowerment index is used in the regression.

The descriptive statistics on women's empowerment index reflects that the average value of women's empowerment index is 0.515 on a range from 0 to 1, where 1 stands for fully empowered and 0 indicates no empowerment. If we look at the two categories of women empowerment, the objective wellbeing (calculated through standardized PCA) does not reflect a good picture as the score appears quite low i.e. 0.350. This score indicates that the objective well-being of women which is below average. In contrast, the average value of subjective wellbeing indicates that according to respondents' own perception on satisfaction, their wellbeing is relatively higher. Now the question arises that although material wellbeing and satisfaction from life is in close connection but not in-line with the self-perception of respondents.

Finally, Table 3 provides the disaggregated descriptive statistics for working and non-working women. The comparative analysis displays a close disposition of the selected women either working or non-working. The analysis for working women show slightly high score for both types of wellbeing than non-working women. Moreover, women empowerment is 39% higher for the working women as compared to non-working. The regression analysis can provide better insight to the logics behind.

Table 3. Comparative Descriptive Analysis for Working and Non-Working Women

Variables	Working Women					Non-Working Women				
	Obs.	Mean	St. Dev.	Min	Max	Obs.	Mean	St. Dev.	Min	Max.
Women empowerment index	236	0.604	0.170	0	1	250	0.434	0.173	0	1
Objective wellbeing	227	0.376	0.109	0	1	243	0.313	0.101	0	1
Overall Life Satisfaction	247	7.2	1.84	1	10	252	6.98	2.1	1	10
Subjective Wellbeing Mean Life Satisfaction	245	3.5	0.61	1.4	4.8	250	3.4	0.7	1.2	4.9

Source: Authors' own calculation.

4.2 Distribution of Wellbeing across Selective Indicators: Cross Tabulation

Table 4 provides the cross tabulation among wellbeing and selective socio-economic and demographic variables. The cross tabulation is reported for those variables explicating significant relationship on the basis of χ^2 test statistics. As the overall satisfaction for subjective wellbeing is measured on 10-point scale, here highly satisfied indicates score 6 and above while 5 and lower score is assigned to the less satisfied. Similarly, higher objective wellbeing is termed for values greater than the mean value i.e. 0.376 and vice versa for the lower wellbeing. The results across the two measures of wellbeing do not show discrepancies but appear with somehow similar findings.

The relationship between age and overall life satisfaction shows that approximately 59% percent women age greater than 30 years are highly satisfied from their lives while only 41.2% of women age less than or equal to 30 years are highly satisfied. Similarly, among less satisfied women majority i.e., 54.5% are from the age group of less than equal to 30 years while 45.5% are from the age category greater than 30 years. Hence, the women of age above 30 years are more satisfied than younger women on both counts. This is in close connection with the findings for marital status where around 65% women who are married are on better

score of satisfaction as well as on objective wellbeing. This is interesting to note that the married and elder women are more satisfied than younger and unmarried.

Table 4. Distribution of Wellbeing and Socio-Demographic Factors-Cross Tabulation (%)

Overall Life Satisfaction	Subjective Wellbeing			Life Satisfaction	Objective Wellbeing		Total
	Highly Satisfied	Less Satisfied	Total		High Wellbeing	Low Wellbeing	
Age							
Less than equal to 30	41.2	54.5	43.8	Less than equal to 30	31.37	58.52	43.80
Greater than 30	58.8	45.5	56.2	Greater than 30	68.63	41.48	56.20
Total	100	100		Total	100	100	
Pearson Chi ²		5.8**		37.168 ***			
Marital Status							
Married	62.8	45.5	59.4	Married	69.74	47.16	59.40
Single	37.2	54.5	40.6	Single	30.26	52.84	40.60
Total	100	100		Total	100	100	
Pearson Chi ²		9.95***		26.241***			
Health status							
Good	67.3	48.5	63.6	Above 16 years	39.48	20.09	30.69
Poor	32.7	51.5	36.4	Up to 16 years	60.52	79.91	69.31
Total	100	100		Total	100	100	
Pearson chi ²		12.2***		21.987***			
Household income							
Less than equal to 100,000	16.2	35.4	20	Less than equal to 1 lac	3.69	39.30	20.00
Above 100,000	83.8	64.6	80	Above 1 lac	96.31	60.70	80.00
Total	100	100		Total	100	100	
Pearson chi ²		18.19***		98.376***			
Employment Status							
Working	51.9	40.4	49.6	Working	61.62	35.37	49.50
Not working	48.1	59.6	50.4	Not working	38.38	65.63	50.50
Total	100	100		Total	100	100	
Pearson chi ²		4.2**		34.218***			
Satisfaction with Financial Situation of the household							
Highly satisfied	84.5	49.5	77.6	Highly satisfied	84.70	69.43	77.43
Less satisfied	15.5	50.5	22.4	Less satisfied	15.50	30.57	22.57
Total	100	100		Total	100	100	
Pearson chi ²		56.09***		16.215***			

Note: 1) χ^2 test statistics are reported and *, **, *** indicates the significance at 10 %, 5 % and 1 %, respectively. 2) The figures are percentages of respondents lying in each category. 3) Health is not included in objective wellbeing because it was one of the measure used in its own measurement.

The comparison of working and non-working women highlights that working women are more satisfied than non-working women. This finding may be justified as working women are relatively more empowered than non-working

women in the sample. Moreover, they are not only financially independent but also have the decision-making power along with the possession of valuable items. However, high educational qualification does not guarantee high satisfaction as 60 % of women with education up to 16 years are highly satisfied whereas 39% highly qualified women attain fall in high objective wellbeing. On the contrary, women in the low wellbeing group, majority of them have education up to 16 years.

Turning to the income of household, although the majority in the high wellbeing are those women who have monthly income of more than 100,000 but surprisingly the less satisfied majority also belong to same household income group. However, among highly satisfied women belonging to rich household are 5 times more than those with income less than 100,000. This supports the established fact that high income improves the level of satisfaction. This is also supported by the findings from satisfaction score where financially strong women are highly satisfied with respect to both objective and subjective wellbeing. This is because the financial soundness improves their satisfaction on the one hand and in gaining socio-economic empowerment, on the other.

4.3 Estimates on the Determinants of Wellbeing: Analysis of Working and Non-working Women

The regression analysis is conducted thrice using the dependent variable of subjective wellbeing measured through overall life satisfaction and average of multiple indicators (mean life satisfaction) about usefulness of life and social networking, and objective wellbeing. The former is estimated through Ordered Logit while estimations for the latter is carried out by employing OLS.

The determinants of objective wellbeing are analyzed through OLS since the objective wellbeing is an index constructed through PCA technique, based on the household's income, various aspects of household's living conditions, utilities at home, health condition of the respondent and residential status and personal expenditures of the respondent. The empirical findings are reported in Table 5. First column in Table 5 reports independent variables for subjective and objective wellbeing. The results are robust to heteroscedasticity and provides the best fit of the model. The coefficients and marginal effects are reported in the table for ordered Probit estimates. The results are also consistent with the cross-tabulation estimates. Both types of the regressions are done taking into account the variable on women empowerment to find out its likely effect on the estimates. However, the equations with women empowerment index are deliberately void of those explanatory variables which have been used in the computation of women

empowerment index to avoid overlapping. Similar practice is done for the equation of objective wellbeing.

Table 5. Determinants of Objective and Subjective Wellbeing

Dependent Variable/Independent Variables	Subjective Wellbeing						Objective wellbeing	
	Overall Life Satisfaction				Mean Life Satisfaction		Without WE	With WE
	Without WE		With WE		Without WE	With WE		
Estimation technique	Ordered Probit	Marginal Effects	Ordered Probit	Marginal Effects	OLS	OLS	OLS	OLS
Age	0.0082 (1.44)	0.0011 (1.41)	0.0125** (2.27)	0.002** (2.2)	0.009** (2.38)	0.008** (2.17)	0.004*** (6.29)	0.002*** (3.42)
education	-0.047*** (-2.92)	-0.006*** (-2.66)	-	-	0.008 (0.91)	-	0.010** (6.24)	-
Religion (1=Islam)	-0.844** (-2.00)	-0.016 (-0.38)	-0.862** (-2.08)	-0.128*** (-2.91)	-0.380 (-1.08)	-0.389 (-1.1)	0.042 (1.05)	0.048 (1.17)
Importance of religion in life	0.090 (0.89)	0.012 (0.90)	0.135 (1.33)	0.022 (1.31)	0.055 (0.92)	0.054 (0.91)	-0.019* (-1.77)	-0.027*** (-2.49)
Household size	0.003 (0.16)	0.0004 (0.16)	-0.005 (-0.27)	-0.009 (-0.27)	0.007 (0.57)	0.0009 (0.08)	0.002 (0.94)	-0.001 (0.30)
Family type (1=Joint)	-0.073 (-0.65)	-0.01 (-0.64)	-0.067 (-0.61)	-0.107 (-0.61)	-0.092 (-1.44)	-0.084 (-1.3)	-0.006 (0.60)	0.001 (0.13)
Married (1=Married)	0.166 (1.40)	0.022 (1.36)	0.24** (2.01)	0.038** (1.98)	0.004 (0.06)	0.0072 (0.1)	0.030 (2.68)	0.006 (0.50)
Divorced/Widowed (1=Divorced/Widowed)	0.0909 (0.35)	0.011 (0.38)	0.159 (0.60)	0.026 (0.59)	-0.184 (-1.09)	-0.193 (-1.09)	0.010 (0.41)	-0.034 (-1.43)
Employment status (1=working)	0.296*** (2.75)	0.038*** (2.58)	-	-	0.062 (0.94)	-	0.037*** (3.56)	-
Dummy for household income (1=income above 1 lac rupees per month)	0.189 (1.37)	0.026 (1.23)	0.160 (1.16)	0.025 (1.18)	-0.0709 (-0.94)	-0.038 (-0.5)	-	-
Satisfaction with financial situation of household	0.295*** (9.36)	0.038*** (5.42)	0.294*** (9.29)	0.047*** (6.52)	0.107*** (7.48)	0.11*** (7.68)	0.009*** (4.00)	0.007*** (3.14)
Possession of valuables	0.007 (1.13)	0.001 (1.11)	-	-	0.008** (2.18)	-	-	-
Health condition	0.383*** (5.50)	0.05 (4.33)	0.342*** (4.95)	0.055*** (4.47)	0.132*** (3.37)	0.124*** (3.13)	-	-
Women empowerment index	-	-	-0.093 (-0.32)	-0.015 (-0.32)	-	0.178 (0.97)	-	0.184*** (6.34)
Constant	-	-	-	-	1.866*** (3.59)	2.08*** (4.3)	-0.007 (0.12)	0.185*** (2.85)
Wald chi ² /F-statistics	174.1	-	156.93	-	9.22	9.35	18.18***	13.04***
Pseudo R-squared/Adjusted R-squared	0.12***	-	0.11***	-	0.225***	0.21***	0.286	0.221
N	492	-	479	-	487	474	465	451

Note: z-statistics/t-statistics are in parentheses. *** indicates significance at the 0.01 level; ** indicates significance at the 0.05 level; and * indicates significance at the 0.1 level, N is the number of observations, WE stands for Women Empowerment.

We begin our discussion for the subjective well-being/overall life satisfaction. The most important variable namely employment status displays that working women are far more satisfied with their lives and the results for objective wellbeing also support this. The statistically significant result for the variable illustrates that the working women are 0.296 units more satisfied than non-working women. However, the women empowerment index only affects the objective

wellbeing and is positively significant. As reported earlier, working women are more empowered and are also more satisfied with the tangible benefits of their status that is being reflected from the high objective wellbeing as a result of high empowerment. However, the effect of women empowerment on the subjective wellbeing appeared as insignificant. This is important to keep in mind that feeling of satisfaction cannot always be gauged by materialistic belongings, rather the emotional and psychological status also matters.

Coming to the discussion of other variables, age appears positively significant implying that as age increases, the level of satisfaction increases. The cross tabulation also supports these findings. This can be justified on materialistic as well as on psychological grounds. As the age increases, income tends to increase generally with the years of service and job experience of working women as well. Regarding psychological satisfaction, age is the major factor that plays its role in enhancing the resentment and sense of being blessed with the passage of time. Surprisingly, the majority (86%) regarded religion most important in their lives, but the findings show that objective wellbeing declines with increase in women's religiosity. This is perceived from the results that the women especially Muslim women consider their faith to be very strong usually but that is not embedded in their lives to affect their subjective wellbeing significantly. This is also reinforced by the findings of as non-Muslim women appear more satisfied with their lives than the Muslim women by about 0.80 units. In literature Ngamaba and Soni (2018) provided similar evidence.

The health condition and satisfaction from the financial situation of household have appeared as most robust and significant throughout the regressions. The health status results report that the good health conditions tend to improve wellbeing of women both objective and subjective. Women are mostly prone to the health problems and regard their good health as an important factor for bearing their children and taking care of household. Physically healthy women are socially more active and feel contented with their lives due to better access to the material gains from life. The findings are in line with Kaplan et al. (2008). On the same count, women who belong to financially sound households are more satisfied and score higher in the wellbeing. This is already established in literature that good financial condition is a major source of wellbeing.

This is noteworthy that education supports objective wellbeing but at the same time also depresses the subjective wellbeing significantly. The objective wellbeing tends to significantly increase by 0.01 units with an additional year of education. The findings are close to reality that education promises a good return

to the women in making them financially strong and having decision making power. The significance of educational attainment is also supported by Faridi et al. (2009). However, the subjective wellbeing mostly hinges on the self-perception of women on satisfaction and their feeling of contentment with their inner self that tends to diminish with higher level of educational qualification. This questions the quality of education and the relative position of women in the patriarchal society of Pakistan where highly educated women although putting considerable share in household income but are not able to materialize the benefits of education categorically. Highly educated males are always preferred over the highly educated female not only on the table of policy makers but also in family decision makings.

Regarding possession of assets, this is important to point out that although the self-perception of overall satisfaction is not significantly affected by it but the indicators on satisfaction (mean life satisfaction) appear with positively significant sign. This implies that the possession of assets is a good source of wellbeing when geared from number of indirect questions but generally women are in denial of this fact and place them low at the wellbeing scale.

Overall, age, health conditions, household financial status, possession of assets and women empowerment appeared as significant indicators of the wellbeing of women with the exception of education that negatively affect their subjective wellbeing.

5. Conclusions and Policy Implications

The study provides an important insight to the major determinants of wellbeing of women both subjective and objective. Results show that the objective wellbeing of working and non-working women is lower as compared to their subjective wellbeing. This implies that overall women consider themselves more satisfied but the measurable indicators are not auxiliary to their self-perception. Moreover, although the women empowerment is average but have significantly positive effect on the objective wellbeing of women. Among other variables, age, health condition and financial status of the household appear as major determinants of women's wellbeing. The working women have better standings on wellbeing than non-working women. The marital status supports the subjective wellbeing (overall satisfaction) of married women than unmarried.

Overall, the policy flows out from the results require women to be more empowered for uplifting their overall wellbeing. The health issues need serious attention to be resolved to make women feel active contributor towards the society. The education attained by women need a direction and right path for suitable

outcomes. The career aspirations are largely governed by the ambitions as well as the opportunities available to female. More employment opportunities for women are likely to have powerful effect on the wellbeing of women through providing the women financial support and more exposure of life.

More precisely, the results indicate that in order to increase the objective and subjective wellbeing of women, there is a need to provide financial security to the households. The results of the health status highlights that a positive perception regarding health status has a favorable effect on both types of wellbeing which indicates the need to provide better health facilities as well as consultations to women in Pakistan. This might entail expansions of the existing lady health worker program as well as psychological counseling at the grass root level. The results for women empowerment shows the need for improving the objective empowerment of women through education and employment can lead to improvement in their economic conditions. This makes the case for facilitating women in pursuing professional careers through provision of day care and separate WC facility at workplaces.

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