

Chapter V

Summary and Conclusions

The branch of positive psychology postulates improving positive constructs in an individual to build well-being and flourishing. The aim of the present study was to construct a scale to measure positive psychology constructs and improve them. The study on “Positive Psychology Constructs: Development and Measurement” began with the research objectives of:

- to develop and validate the C. A. R. E Inventory.
- to develop and validate the C. A. R. E Intervention Module.

Hypotheses developed for the present study based on the objectives were:

- The model developed has sufficient model fit indices indicating goodness of fit
- The C. A. R. E. inventory has sufficient construct reliability and test-retest reliability
- The C. A. R. E. inventory has sufficient content, convergent, discriminant and concurrent validity
- The C. A. R. E. intervention module is validated by randomized control trials

Standardized psychological tools were used to test the hypotheses on a sample of 862 adults selected through simple random sampling method. Data was collected and analysed using the SPSS version 21 and AMOS graphics version 22.

For the purpose of fulfilling the first objective, initially items were generated, validated for content, subjected to exploratory factor analysis and finally confirmatory factor analysis. The confirmatory factor analysis was repeated three times in order to arrive at items with the best model fit indices. For the developed 36-item C.A.R.E inventory, the model fit indices received were:

- Normed chi-square value of 3.678,
- Comparative Fit Index (CFI)=0.943,
- Incremental Fit Index (IFI)=0.943,
- Tucker-Lewis Index (TLI)=0.939.
- Normed Fit Index (NFI)=0.924,

- Relative Fit Index (RFI)=0.918,
- Root Mean Square Error of Approximation (RMSEA) value of 0.056 and a
- Standardized Root Mean Squared Residual (SRMR) value of 0.0295, all of it indicates a good fit for the model. All items had a factor loading of above 0.07.

All the above factors account for goodness of fit of the 36-item C.A.R.E inventory. The reliability and validity coefficients were calculated as below:

Reliability statistics

- Cronbach's alpha: 0.92
- Test-retest reliability: 0.89
- Construct reliability: 0.96, 0.92, 0.96 and 0.95 for each of the constructs respectively

Validity statistics

- Content validity: 0.95 for subject experts, and 0.88 for stakeholders
- Convergent validity: 0.71, 0.60, 0.75, and 0.67 from the AVE scores
- Discriminant validity: 0.84, 0.77, 0.86 and 0.81 from the R2 scores

For development and validation of the C.A.R.E intervention module, items were generated, followed by content validation. The final module after content validation consisted of 7 activities developed for each of the four constructs and hence consisted of 28 activity sessions each of 20-to-30-minute duration, that could be conveyed and practiced face to face or virtually. After every 4 sessions, a feedback session was held with the participants to understand their feedback and also to clarify any doubts. Following this, four randomized control trial experiments were conducted as follows:

- **Randomized Control Trial 1:** A Positive Psychology-Based Intervention Model (C. A. R. E) for Pain Catastrophizing and Well-being among the Elderly during the pandemic: A Randomized Control Trial: The sample consisted of 68 elderly persons both male and female (aged 65 to 75 years) who were COVID survivors selected through purposive sampling. They were then randomly assigned into an experimental group and a waitlist control group of 34 elders in each group. Both groups were assessed before and after the intervention using standardized psychological scales measuring pain catastrophization and well-being. The C.A.R.E intervention module was administered to the experimental

group. As the groups were not normally distributed, nonparametric statistics such as the Wilcoxon signed rank test and the Mann Whitney U test were used and significant improvement was reported in well-being while significant reduction in pain catastrophizing reported for the experimental group showing the efficacy of the intervention.

- **Randomized Control Trial 2:** Efficacy of C. A. R. E Intervention Module on Stress and Happiness among Working Women: The sample for the study consisted of 84 women (from various registered and unregistered occupations, aged between 22 to 60 years) were selected using a stratified random sampling technique (who were in registered or unregistered occupations). The selected 84 participants were randomly assigned to an experimental group and waitlist control group, each group consisted of 42 participants. Both the groups were assessed three times, before, during and after intervention using standardized psychological scales measuring stress and happiness. The C.A.R.E intervention module was administered to the experimental group. Both groups were then assessed using the 2-way repeated measures MANOVA. Significant results including high effect sizes were found for the participants of the experimental group and not the waitlist control group. This showed that the intervention module was effective in reducing the stress and increasing the happiness of the participants.
- **Randomized Control Trial 3:** Developing a Positive Psychology Intervention to overcome Self-criticism and Anxiety in the Pandemic Era: The sample consisted of 68 participants aged 18 to 27 years selected through the snowball sampling technique. All the participants were female and had undergone some loss connected with the COVID pandemic. Then, they were randomly assigned to an experimental group of 34 participants and a waitlist control group of 34 participants. Both groups were assessed three times, before, during and after the intervention. The assessment was done using standardized psychological scales to measure self-criticism, self-reassurance, self-hatred, and anxiety. Only the experimental group was administered the C.A.R.E intervention module. Data analysis began with stringent normality checking using the Shapiro wilk test, normal distribution, skewness and kurtosis tests. The sample was found to be normally distributed and hence parametric statistics were performed namely,

2-way repeated measures MANOVA. Significant effect sizes were found for the experimental group indicating the effectiveness of the intervention in reducing the self-criticism, self-hatred and anxiety at the same time increasing the self-reassurance levels of the participants of the experimental group.

- **Randomized Control Trial 4: A Virtual Positive Psychology Based Intervention Model for Young Adults:** An initial sample of 258 female students in the age group of 18 to 24 years were selected through simple random sampling. Only 138 students were able to take part in the study owing to many constraints. Through the process of randomization, they were assigned to an experimental group and a wait list control group, each with 69 participants. Both groups were assessed for depression, loneliness, and hope using standardized psychological scales. The experimental group was administered the C. A. R. E intervention, while the control group did not receive any intervention. Paired sample and independent sample t test and Cohen's D test revealed significant effect sizes for the experimental group indicating the efficacy of the intervention in reducing depression and loneliness, at the same time increasing the hope levels.

Conclusions

The following conclusions can be drawn:

- The C. A. R. E inventory has been standardized by establishing sufficient reliability and validity.
- The C. A. R. E intervention module has been validated using four randomized control trials.

Limitations

The study had the following limitations:

- It was conducted during the pandemic and hence the needs to be further tested during non-pandemic times.
- The inventory and intervention module are in the English language and needs to be translated into regional languages to meet the needs of non-English speaking population.
- The inventory and intervention module need to be digitized to reach further levels

- The inventory and intervention module have to be created in different versions, say for example, children, etc.
- One of the studies, specifically randomized control trials used snowball sampling, but since normality was established, parametric statistics were employed
- The impact of the intervention could be studied on flourishing

Strengths of the study

The present study had the following strengths:

- The study has empirical robustness
- The C. A. R. E intervention module has been granted copyright by the Indian Government

Implications of the Study

The present study has the following theoretical and practical implications:

- Addition of the new theoretical framework of C. A. R. E in positive psychology, which can open doors for further research into these positive psychology constructs
- The framework of C. A. R. E can be applied to different settings for the development of well-being of human beings.
- Policy recommendations on the mental health needs of citizens can be made from the C. A. R. E framework.

The way forward

The following could be the future directions for the study

- Digital mental health applications for the C. A. R. E inventory and the intervention module
- Popularizing the study using multiple publications

The present study indicates that the C. A. R. E inventory measures positive psychological constructs effectively. The C. A. R. E intervention module is effective in reducing negative affect and increasing positive attributes and bring forth flourishing and well-being for the participants.