Summary and Conclusions
CHAPTER V

SUMMARY AND CONCLUSIONS

This study intended to explore the extent to which a multipronged intervention comprising of systematic desensitization, progressive muscular relaxation and counseling facilitate four categories of hospital managers; Male Managers in Private Hospital, Female Managers in Private Hospital, Male Managers in Cooperative Hospital and Female Managers in Cooperative Hospital to reduce occupational stress, burnout and enhance well-being.

This chapter presents the summary of the investigation, the key findings, conclusions and implications of this investigation. It further, lists the limitations of the study and scope of future research.

Objectives

i) To determine whether the Intervention targeted at professional managers in health service institutions have a significant effect in reducing occupational stress and burnout and enhance well-being.

ii) To determine whether the Intervention targeted at professional managers in health service institutions show significant gender differences in attaining its objectives.

iii) To determine whether the Intervention targeted at professional managers in health service institutions show significant institution type differences in attaining its objectives.

Hypotheses

H$_1$: There will be a significant reduction in Occupational Stress after the intervention for all the four categories of Professional Managers
H2: There will be significant category differences in Occupational Stress after the intervention among the four categories of Professional Managers

H3: There will be a significant reduction in Burnout after the intervention for all the four categories of Professional Managers

H4: There will be significant category differences in Burnout after the intervention among the four categories of Professional Managers

H5: There will be a significant improvement in General Well-Being after the intervention for all four categories of Professional Managers

H6: There will be significant category differences in General Well-Being after the intervention among the four categories of Professional Managers

Research Design & Methods

This study followed a 4 X 3 Mixed Factorial design. Twenty five Male and twenty five Female Professional Managers from a Private Hospital and twenty five Male and twenty five Female Professional Managers from a Cooperative Hospital comprised the four groups for the study. The four groups were assessed at three points of time; pretest phase, posttest phase and one month after the intervention was withdrawn: follow-up phase. The within-subjects factor was the three phases of testing or time and the between-subjects factor was the category of Professional Managers; Male Professional Managers from a Private Hospital, Female Professional Managers from a Private Hospital, Male Professional Managers from a Cooperative Hospital and Female Professional Managers from a Cooperative Hospital.

As it was intended to conduct a mixed factorial design with all the four groups receiving intervention for a period of three months and assessing them at three points of
time; before intervention, after intervention and one month delayed follow up, 100 hospital staff working in managerial roles were purposively identified from one private hospital and one cooperative hospital in Malappuram District, Kerala. 25 Male and 25 Female managers from a private hospital and 25 Male and 25 Female managers from a cooperative hospital were approached to be a part of the intended study.

**Measures**

- A Demographic Questionnaire was used to capture the demographic profile of the sample.
- The Occupational Stress Index developed by Srivastava and Singh (1984) was used to measure the extent of job-related stress as arising from various constituents and conditions of jobs.
- The Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981) was used to measure respondents’ perceived experience of burnout in relation to the recipients of their service, care or treatment.
- The 5 items Well-being Index by WHO (2000) was utilized as the questionnaire concerning emotional state and well-being.

**Intervention**

The multimodal intervention used in this study consisted of three main components such as

i) **Systematic Desensitization**: Systematic desensitization is the gradual counter conditioning of anxiety using relaxation as the incompatible response. The procedure, originally developed by Wolpe (1958), is one of the most powerful tools in behavior
modification. Desensitization comprises of training in relaxation, construction of hierarchies, visualization and counter conditioning.

ii) Relaxation Training: Since relaxation was to be used as the incompatible response in counter conditioning anxiety, a modified version of Jacobson’s (1938) muscle relaxation method; (Mishra, 1974), was used to induce autonomic relaxation in the subject. Training in muscle relaxation was desirable because it provided learning an additional useful self-control skill and provided a level of relaxation that allows the subjects gradually becoming relaxed during the counter conditioning sessions.

iii) Counseling: The didactic counseling sessions consisted of educating the managers on the importance and relevance of understanding organizational policies, the benefits of organizing personal space, the advantages of developing a healthy lifestyle, the benefits of establishing and maintaining appropriate social support, the importance of controlling emotional reactions, the short term and long term benefits of goal setting, time management and leisure time activities, and the importance of assertive behavior in contrast to passive and aggressive behavior.

Analysis

As it was intended to examine the effectiveness of the intervention on the various factors under investigation over three phases; pre intervention, post intervention and one month delayed follow-up, and further explore category differences among the four designated groups, this study followed a 4 X 3 Mixed Factorial design. In this study four categories of professional managers were tested at three points of time. The within-subjects factor was the three phases of testing of the variables under investigation or time and the between-subjects factor was the category of professional managers. One of the
most common designs used in psychology experiments is a two factor ANOVA, where one factor is varied between subjects and the other within subjects. The analysis of this type of experiment is a combination of the analysis of two-way between subjects ANOVA and the within-subject analysis.

The interaction between the within-subjects and the between-subjects factor was examined first. A separate one-way ANOVA analyses for each level of one factor, was carried out in case of a significant interaction being found. In addition to univariate test results, the results of the multivariate tests were reported whenever the sphericity assumption was violated for the within-subjects factor. Additionally the $F$ values were reported after correcting the degrees of freedom using Greenhouse-Geisser estimates of sphericity.

Duncan’s post multiple range tests resulting in homogenous subsets was used for between-subjects comparison. Moreover, for the within-subjects factor the Bonferroni post hoc test was used with Estimated Marginal Means. The results of the mixed ANOVA were further illustrated using line graphs to present a clear picture of the levels of the variable for different categories at different points of time.

The demographic profile of the sample was constructed and explained. The subjects were matched on gender and departments where they work.

**Findings**

The findings of this investigation indicated that the multipronged intervention aimed at mitigating stress and burnout, and enhancing well-being among professional managers in health service institutions was successful in achieving its perceived intent.
The occupational stress among the four categories of managers significantly reduced in response to the intervention from the pretest phase to the post test phase. There was negligible increase in the total occupational stress subsequent to withdrawal of the intervention after one month at the follow up phase. There was a significant increase in poor peer relations dimension of the occupational stress index subsequent to the intervention, which might be due to lack of autonomy and control and possible reluctance in seeking support as doing so might be perceived as a lack of a valued coping resource. There were no significant category differences among the managers with regard to the effects of the intervention.

The multi modal intervention was effective in reducing burnout among the four categories of managers. Significant test X category interactions were observed, reported and discussed. The managers registered a significant reduction in emotional exhaustion and depersonalization dimension of burnout after the intervention with no significant category differences. There was significant increase in the personal achievements dimension of burnout, with significant category differences. The results indicated the type of institution had a significant effect on the effects of intervention rather than gender.

The intervention was effective in increasing the well-being levels of managers. There were significant improvements in well-being from pre test to post test phase. The well-being levels were somewhat similar at the follow-up phase as well all the four categories of managers.

The components of the intervention module; systematic desensitization, progressive muscle relaxation and counseling sessions involving assertiveness training,
time management, understanding institutional policies would have facilitated the managers of both the private hospital and cooperative hospital to reduce occupational stress and burnout. Further, it also enhanced the level of well-being experienced by the managers.

Based on the results of the study and key findings it would be appropriate to arrive at reasonable conclusions regarding the effects of the Intervention on the occupational stress, burnout and general well-being among professional managers of health service institutions.

Conclusions

From the findings it can be concluded that:

- The intervention was successful in effecting a reduction in occupational stress and certain key dimensions of occupational stress among male and female managers of the private and cooperative hospital
- The poor personal relations dimension of the occupational stress registered an increase after the intervention for male and female managers of the private and cooperative hospital indicative of a reduction in interpersonal relationship
- The intervention was effective in reducing total burnout and the emotional exhaustion and depersonalization dimensions of burnout for male and female managers of the private and cooperative hospital
- The personal accomplishments dimension of burnout registered an increase after the intervention for male and female managers of the private and cooperative hospital. The managers of the private hospital were feeling more personally
accomplished or efficacious in comparison to managers of the cooperative hospital.

- The intervention was effective in increasing the well-being of male and female managers of the private and cooperative hospital and maintaining it for a period of one month after withdrawal of the intervention.

The multimodal intervention with cognitive components was effective in delivering changes in occupational stress, burnout and general well-being among managers of the private and cooperative hospital. This intervention was targeted at individuals who might be experiencing stress and burnout. Incorporating strategies at the primary/organizational level and initiative from the management are crucial for effective and more sustainable stress reduction. Moreover government policy changes would also be effective in delivering more stress free work environments.

**Implications**

This study which intended to reduce occupational stress, burnout and enhance well-being using a multimodal intervention with cognitive components among managers of private and cooperative hospitals has significant implications for managers, health service institutions, hospital management and policy makers.

The notable observation made as a part of the study was that the intervention was successful in reducing occupational stress and burnout and increasing levels of well-being among managers of both the private and cooperative hospital. This implies that the intervention was effective, over and above institutional conditions, in reducing stress.

As noted widely in literature, the health care industry is severely affected by understaffing, service delivery, lack of technical and work resources, which make
workers in the health care industry particularly prone to severe stress and its negative consequences. This intervention delivered to managers in hospitals can be scaled to fit other workers in health care industry as well.

A reduction in the stress of health care staff has wide implications as it ensures better quality service delivery/patient care, reduced medical accidents and optimized use of human resources. Further, attrition rates as well as brain drain among health care providers can be arrested to a considerable level, as the former are consequences of stress, strain, burnout and poor well-being.

Hospital management can ensure that such interventions at regular intervals can ensure better human resources and reduced cost of staff maintenance.

Limitations

The limitations of this study would be worth listing as it will enable the reader to interpret the results in the backdrop of these limitations.

The data were collected using purposive sampling from a private hospital and cooperative hospital in Malappuram district of Kerala. The sample size was medium (N=100); a larger sample size would have increased the generalizability of the results.

The data utilized in this study are cross-sectional a score change was self-reported by the subjects subsequent to the intervention.

This investigation was quasi-experimental hence random assignment to reduce the element of chance was not there. Additionally gender and the departments where they work were the only attributes that have been matched. Further, control or waitlisted groups were not included in this study therefore conclusions regarding causal relationships have to be drawn with considerable caution.
Future research

On the basis of the experience and insights gained during the course of this study, it is possible to come out with some specific suggestions regarding future research that may be done on this segment of population. Some of them are listed below:

Organizational level interventions, restructuring and policies and its effects can be further investigated since this study has observed significant institutional differences in the personal achievements dimension of burnout.

This intervention did not take into consideration the effects of family on work stress and burnout. Therefore the influence of such factors on the stress levels can be further explored.

Longitudinal studies exploring the effects of the various interventions over time can be carried out.

The effects of this intervention on the workers of other hospitals, primary health centers, nurses and doctors treating critically or terminally ill patients, can be further explored.