

## Effectiveness of Hardiness Training on Caregivers of Mentally ill Patients with Relation to Their Productivity

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### ABSTRACT

**Background/Objective:** The mental health of an informal caregiver to a mentally ill patient is often overlooked. Such caregivers sometimes struggle with demands of the role and the resultant loss of productivity. An explorative model was hypothesized that hardiness training will improve the productivity for individual with increased life stress. This inevitably also affects caregivers' quality of care. **Method:** 30 subjects were selected randomly and divided into 2 groups of 15 each (experimental and control). The experimental group was given hardiness training whereas the control group did not undergo any intervention. Their hardiness, severity of depression, levels of productivity and amount of burden were measured both at the beginning and end of the study. **Results:** The experimental group had statistically significant value improvement in hardiness and enhanced levels of production. **Conclusion:** This study has provided an insightful outcome that enables us to adapt hardiness training, with an aim to improve caregivers' resistance to stresses, decreases their depression levels and improves their productivity.

**Keywords:** *Hardiness Training, Caregivers, Mentally ill Patients, Relation, Productivity*

Mental health is an integral part of defining one's health status; an absence of mental illnesses does not relate automatically to good mental health. It is the quintessential core for the welfare and efficacious functioning of individuals, be it in their work place, in society or at home and good mental balance enables one to overcome frustrations and distressing situations that tends to influence, work capably and one's ability to participate positively within and for society (National Mental Health Policy, Government of India, 2014).

Relatives / spouses who dispense regular support / informal care (no regular income as a result of the care-giving) for a person who requires assistance for doing his / her daily self-care activities can be termed under the term 'family caregiver'. The role of caregiving involves making meals, ensuring intake of medication regularly, ensuring physician follow-up and addressing emergency needs.

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Caregiver burden and stress perceived by them was a concept enlightened by Treudley in 1946, where it is expressed the poor quality or mediocre living standard is often seen as leading to deleterious effect on their mental health. The burden on the caregiver can broadly be divided into objective burden and subjective burden. Burden reflects on the chores that have to be done in caring for a patient and subjective burden refers to the degree to which one is mentally weighed down by caregiving. (Jones, 1996). It is noted that subjective burden consists of feelings like guilt, loss, non-acceptance, shame, a sense of dishonour, anger, sadness and fear (Tantawy, 2010).

Factors often identified to contribute to burden are duration of care-giving, older age of the caregiver, female gender and the extent of care-giving. Often severity is further extended if they are care providers for spouses with mental illness (Schulz & Sherwood, 2008). The outcome of burden effect is important as it will influence the quality of caregiving more specifically if they are depressed, as it been noted that greater the burden more higher risk of caregivers experiencing depression, burn out or fatigue (Wang, 2014).

The prevalence of depression compared among caregivers of mentally ill patients were higher and noted to be higher among the general population more specific to female caregivers in comparison to male. Therefore, it is important that emphasis be placed on primary caregivers who spend many hours providing care and those who don't have any / low social support (Derajew, 2017)

Personality traits such as self-efficacy, resilience, mastery and coping style that are known to be associated with decreased risk of depression and burden/stress in the caregiver in contrast to neuroticism which increases the risk of care giver depression (Nicola, 2013). Individuals with high self-efficacy were noted to be less vulnerable to stress and depression.

The relationship between the quantity and / or quality of a product and the effort required to generate it indicates individual productivity. (American Psychological Association). John Lenneman et al., (2011), identified that productivity impairment was greater for participants with chronic health conditions. Improvements in the subjects' health status led to significant gains in performance and productive capacity, a common problem reported was low level of physical activity among caregivers (Farran et al, 2008). The personality traits of each individual caregiver are important when we look at their productivity.

Active coping traits were associated with less absenteeism whereas avoidance coping was associated with more depression and more absenteeism.

Hardiness has generally been conceived as a multidimensional entity consisting of commitment, control, and challenge (the three Cs). Kobasa (1979) refers to hardiness as a personality style relating an individual characteristic that indicates a balance of disposition, temperament and temper, which keeps the person healthy even after extended exposure to stress. Having considering this particular condition of hardiness intervention based on the same can be of use to caregiver well-being by ensuring them with psycho-therapeutic model to face the challenges of the role. Preparing a person to be resistant to negative impact of stressful circumstances and events.

This study specifically address family caregivers of mentally ill patients as depression in caregivers has long been a neglected issue mainly due to the non-clinical indicator of the same

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or ignorance to seek help in the given situation. Though literature has clearly illustrated that family caregivers of patients with a varying degree of mental illness suffer from mental distress (like depression, inability to sleep, apprehension, somatization, paranoia and obsessive behaviour). The need to adopt a more feasible method of intervention, that can be easily demonstrated on a brief time period and yet provide impact to arriving at desired results. In consideration Hardiness training has been viewed as appropriate methodology that is administered and measured and measured in the study.

### **METHOD**

#### *Procedure*

The objective of the study is to implement hardiness training on the caregivers of psychiatric patients with mild depression and to evaluate the hardiness level and their work productivity.

The research design selected for this study was Pre-test Post-test with a control group because the study was intended to measure the changes in Level of Hardiness, Caregiver Burden and Productivity among the psychiatric patient's caregivers who had undergone 5 weekly sessions of Hardiness training.

The technique for selecting sample that was used was 'purposive sampling'. The sample was collected from SRM Medical College Hospital and Research Centre and Government Chengalpattu Medical College and Hospital appropriate ethical guidelines were used.

30 psychiatric patient's caregivers, between the ages 25-50, who are residing with the patient for a minimum of one year were taken. The subjects were arbitrarily chosen to be in the Experimental Group (15 members) or the Control Group (15 members).

The screening was carried out using Beck Depression Inventory-II. Those scoring 14 to 19 were included in the study. They were further evaluated using The Dispositional Resilience Scale to measure hardiness. That includes conceptually significant Hardiness components of commitment, control, and challenge. The reliability coefficient between tests was 0.78. The Cronbach-alpha internal consistency coefficients range from 0.70 to and 0.77, while the whole coefficient is 0.83. Further evaluated using, The Zarit Burden Interview to understand level of burden in caregivers. The Patient Health Questionnaire is a scale used to determine the degree of depression. Specific to diagnostic section checking difficulties relating to perform their jobs, take care of their homes, or get along with others. The Lam Employment Absence and Productivity Scale, which measures productivity and absence from work, gives insight into how one performs on their work. The LEAPS can be used to track how occupational functioning evolves over time and a helpful charting tool for evaluating progress.

Hardiness training consisted of situational reconstruction, focus, compensating self-improvement and creating and executing an action plan. A total of 5 sessions of hardiness training of about 60 minutes duration, once a week was given with specific measures and target set for intervention for caregivers. The following targets were set for Hardiness training which includes Situational reconstruction, Focus, Compensatory self-improvement, Formulating and carrying out action plan. This process was carried out over 5 sessions with a duration of 60 minutes duration once a week.

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### *Statistical Analysis*

The SPSS was used where a paired sample *t* test is was used to compare the means of two measurements taken from the same individuals. 95% confidence interval is obtained from the difference between the two sets of joined observations.

## **RESULTS**

**Table 1**

Variables	Description	Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
<b>Age</b>	20-30	0	0.0%	2	13
	31-40	8	53%	7	47%
	41-50	7	47%	6	40%
<b>Gender</b>	Female	12	80%	11	73.3%
	Male	3	20%	4	26.7%
<b>Marital status</b>	Married	12	80%	14	93.3%
	Single	3	20%	1	6.7%
	Daughter	5	33.3%	3	20.0%
	Daughter-in-law	0	0.0%	1	6.7%
<b>Relationship with patient</b>	Father	1	6.7%	0	0.0%
	Husband	1	6.7%	2	13.3%
	Mother	3	20.0%	0	0.0%
	Sister	0	0.0%	1	6.7%
	Son	1	6.7%	2	13.3%
	Wife	4	26.6%	6	40.0%
	Rural	1	6.7%	1	6.7%
<b>Residence</b>	Semi-urban	9	60.0%	6	40.0%
	Urban	5	33.3%	8	53.3%
	High School	4	26.7%	2	13.3%
<b>Education</b>	Higher Secondary	2	13.3%	2	13.3%
	PG	2	13.3%	2	13.3%
	UG	7	46.7%	9	60%
	20000-50000	2	13.3%	4	26.7%
<b>Income</b>	10000-20000	10	66.7%	8	53.3%
	5000-10000	2	13.3%	3	20.0%
	< 5000	1	6.7%	0	0.0%
<b>Years of Caregiving</b>	0-5	6	33.3%	2	23.3%
	6-10	7	46.6%	10	66.7%
	11-15	2	13.3%	3	20.0%
<b>Employment status</b>	Employed	15	100%	15	100%
	Not-employed	0	0.0%	0	0.0%

The analysis indicated that vast majority in both the experimental and control groups were married and caregivers were mostly females. The age range of the caregivers were in the 31-40 years age group. When we consider the relationship of the caregiver to the patient, the experimental group had a majority of daughters whereas the control group had a majority of wives. Regarding education, approximately both the groups had a similar amount of UG degree holders. Most of them participated in this study came from urban and semi urban areas across both groups.

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**Table 2 Mean and standard deviation of hardiness scores of the groups**

Group		Mean	N	Std. Deviation	Std Error Mean
Experimental Group	Hardiness Pre test	17.33	15	3.06	0.79
	Hardiness Post test	32.00	15	4.64	1.19
Control group	Hardiness Pre test	20.40	15	2.87	0.74
	Hardiness Post test	20.33	15	2.89	0.74

**Table 3 p values of hardiness between the groups**

Group	Mean ± Standard deviation	Std Error Mean	t	d.f	p value
Hardiness Experimental Group	-14.66±3.34	0.99	-14.76	14	0.00
Hardiness Control Group	0.06±0.59	0.15	0.43	14	0.67

As shown in tables 2 and 3, results showed that although the pre-test hardiness scores were similar in both the groups, the post-test hardiness scores were significantly better for the experimental group when compared to the control group

**Table 4 Mean and standard deviation for burden in both the groups**

Group		Mean	N	Std. Deviation	Std Error Mean
Experimental Group	Burden Pretest	32.20	15	9.84	2.54
	Burden Post test	18.87	15	4.32	1.11
Control group	Burden Pre test	31.40	15	1.59	0.41
	Burden Post test	31.60	15	1.40	0.36

**Table 5 p value of both groups in relation to burden**

Group	Mean ± Standard deviation	Std Error Mean	t	d.f	p value
Burden Experimental Group	13.33±6.87	1.77	7.51	14	0.00
Burden Control Group	-0.20±0.41	0.15	-1.87	14	0.08

Data in tables 4 and 5 suggest that there was remarkable reduction in the Burden score after introducing Hardiness training. In the Control group the obtained 't' value (-1.87, p ≥ 0.08) indicates that the findings were not statistically significant at 0.05 level.

**Table 6 Mean and standard deviation for PHQ scores**

Group		Mean	N	Std. Deviation	Std Error Mean
Experimental Group	PHQ Pretest	10.00	15	2.26	0.58
	PHQ Post test	4.40	15	1.24	0.32
Control group	PHQ Pre test	10.27	15	1.03	0.26
	PHQ Post test	10.33	15	1.29	0.33

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**Table 7 p value of PHQ scores among both groups**

Group	Mean ± Standard deviation	Std Error Mean	t	d.f	p value
Experimental Group PHQ	5.60±1.76	0.45	12.29	14	0.00
Control Group PHQ	0.06±0.59	0.15	-0.43	14	0.67

As seen in the tables 6 and 7 there is a decrease in the PHQ score after Hardiness training and a significant decrease in their depression levels as measured by the questionnaire.

**Table 8 Mean and standard deviation of productivity levels in both the groups**

Group		Mean	N	Std. Deviation	Std Error Mean
Experimental Group	Productivity Pretest	12.00	15	2.80	0.72
	Productivity Post test	5.27	15	1.62	0.41
Control group	Productivity Pre test	11.40	15	1.12	0.28
	Productivity Post test	11.27	15	1.22	0.31

**Table 9 p values between both the groups for productivity**

Group	Mean ± Standard deviation	Std Error Mean	t	d.f	p value
Productivity Experimental Group	6.73±1.98	0.51	13.16	14	0.00
Productivity Control Group	0.13±0.51	0.13	1.00	14	0.33

The findings seen in Tables 8 and 9 indicate that there was significant effect in the Productivity score after introducing Hardiness training.

### **DISCUSSION**

As previous studies have noted the level of burden has an inverse relation to income of the caregiver. Four out of the fifteen caregivers did not show a significant improvement in their productivity. When we look individually at these cases, we found low levels of income to be one of the likely reasons. Moreover, we found three out of the four caregivers had only completed high school education. As a low level of education mostly leads to low-income jobs, this is a cycle from which caregivers find it hard to escape from. In such cases the hardiness training that was imparted to them did not have much impact on their productivity. Social support and external financial support or institutional support will likely improve the productivity in such caregivers.

When we look at employees in a manufacturing set up, factors such as age, education and tenure have an impact on their absenteeism and overall productivity (Amegayibor, 2021). As subjects age, their productivity tends to decrease. High level of education had better positive correlation with productivity. This matches with our study, where care givers who had completed UG/PG degree had a better basic level of hardiness than those who had completed only schooling. As stated earlier, a better education yielding a better salaried job may also play a role in such care givers having higher levels of hardiness and more productivity.

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Socio demographic factors like urbanization and nuclear families have resulted in a lower level of production and increase in health concerns (Noor, 2016). This is understandable because as the number of caregivers in a nuclear family will be less, more strain will be placed on them and therefore have an ultimate negative impact on both care giver and patient. As levels of urbanization increase, the joint family is broken down into nuclear families and thus lower number of caregivers to share the burden. This may not be a issue in households with a high monthly income, but in lower income households this is a significant issue which has an adverse effect on the health of the caregiver and the recipient. The caregivers in the experimental group who participated in this study mostly came from semi urban areas whereas majority of control group caregivers were from urban areas. We can safely assume most of these families as being nuclear families. Also, unlike rural settings where the community may step in to help, such activities are not likely in semi urban or urban areas. In our study most of the caregivers reported an initial decline in work productivity.

In scenarios where household income is very less, it is essential to provide a community set up which will help the care giver. Ideally in such situations, there must be a government funded set up in the community which will help the caregiver immensely. Their productivity will naturally increase as they can confidently leave the patient in the community set up and go about their work with atleast some degree of freedom.

In our study most of the care givers were women. This is generally the case as said in numerous studies (Diniz et al, 2018). Even in formal care giving, women tend to make up a higher proportion. There are many pressures relating to culture and society when it comes to women being made to adopt the role of care giving in the family. There is contrasting evidence regarding the role gender plays in the perceived stress and psychological distress when it comes to care giving. Some studies show women to be more affected by stress and some studies have found no significant difference between men and women (Nidhi, 2016). As most of the care givers in this study were women, we cannot come to any conclusion based on gender and if it affects the hardiness and productivity. On the other hand, considering the fact that most are women and most of the care givers had only low levels of depression, we can say that women may have higher levels of inherent resistance and therefore better hardiness. But we need a larger study to probe this angle further.

The results of the study revealed that majority of the psychiatric patient's caregivers with mild depression experienced mild level of Caregiving Burden which reinforces the idea that burden and depression are directly proportional to each other.

Our study revealed that the mean pre-test patient health questionnaire mean score of Experimental group and Control Group were fairly similar. The PHQ score is significantly reduced in the Experimental group after Hardiness training whereas the PHQ score remains roughly the same in the Control group.

The results of the study depict, that majority of the psychiatric patient's caregivers who experience mild depression have low level of hardiness. There was a significant increase between the pre and post-test readings of hardiness in the experimental group. No significant improvement was seen in the control group. This indicates that the subjects with an initial low level of hardiness, had improved hardiness after being imparted with hardiness training.

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The humanistic and economic burden is well known among caregivers of mentally ill patients. The restrictions placed on the informal care giver ultimately reduce their productivity. The present study results' pre-test values indicate that the subjects had moderate decline in work productivity. After hardiness training, the productivity level score of the caregivers had shown improvement in the experimental group. These results reveal that the productivity had significantly improved after Hardiness training when compared to the control group.

### CONCLUSION

Our results proved the hypothesis that hardiness training decreased the depression levels and increased the productivity of caregivers.

Although Hardiness is an ability in the caregiver which can be improved by specific training, various factors are involved when it comes to productivity. Chief among these is social and financial security. That is beyond the scope of this study and future studies can target the role that social support structures and financial help may play in increasing productivity.

The present study number was too small to consider the effect that gender, marital status and education had on hardiness training. As education and income are linked, a bigger study is needed to see if higher level of education produces higher level of hardiness.

Although the study showed an increase in productivity after hardiness training, whether this improvement is temporary or permanent needs to be confirmed with a study of a larger duration.

### REFERENCES

- Aaron T Beck, C Ward, M Mendelson, J Mock, JJAGP Erbaugh (1961) An Inventory for measuring depression. *Arch Gen Psychiatry*. 4, 561-71
- Adelman RD, Tmanova LL, Delgado D, Dion S, Lachs MS. (2014) Caregiver Burden: A Clinical Review. *JAMA The Journal of the American Medical Association*. 311(10):1052–1060.
- Addo, R., Agyemang, S. A., Tozan, Y., & Nonvignon, J. (2018). Economic burden of caregiving for persons with severe mental illness in sub-Saharan Africa: A systematic review. *PloS one*, 13(8), e0199830.
- Adeleh Bakhshizadeh, Shohreh Ghorban Shiroudi & Javad Khalatbari (2013) Effect of Hardiness Training on Stress and Post-Partum Depression, *Procedia - Social and Behavioral Sciences*, Volume 84, 1790-1794.
- Amegayibor.G.K (2021) The effect of demographic factors on employees' performance: A case of an owner-manager manufacturing firm. *Annals of Human Resource Management Research*, 1(2), 127-143.
- Aranda MP, Knight BG. (1997) The influence of ethnicity and culture on the caregiver stress and coping process: a sociocultural review and analysis. *The Gerontologist*, Vol 37, 342–354.
- Ashraf Mohamed Ali El-Tantawy, Yasser Mohamed Raya and Al Sayed Mohamed Kamal Zaki (2010) Depressive disorders among caregivers of Schizophrenic patients in relation to burden of care and perceived stigma. *Current psychiatry*: Vol. 17, No.3, 15-25
- Baker, L.A., Cahalin, L.P., Gerst, K. et al. (2005) Productive Activities and Subjective Well-Being Among Older Adults: The Influence of Number of Activities and Time Commitment. *Social Indicators Research* 73(3), 431–458.

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- Bartone., James J., Valdes & Asle Sandvik (2016): Psychological hardiness predicts cardiovascular health. *Psychology, Health & Medicine*, 21:6, 743-749.
- Beck, A., Crain, A. L., Solberg, L. I., Unützer, J., Glasgow, R. E., Maciosek, M. V., & Whitebird, R. (2011). Severity of depression and magnitude of productivity loss. *Annals of family medicine*, 9(4), 305–311.
- Clark P (2002). Effects of individual and family hardiness on caregiver depression and fatigue. *Research in Nursing and Health*, 25(1):37-48.
- Da Silva, R.M., Goulart, C.T., Lopes, L.F.D. *et al.* (2014) Hardy personality and burnout syndrome among nursing students in three Brazilian universities—an analytic study. *BMC Nursing*, 13:9
- Dawood S. (2016) Caregiver Burden, Quality of Life and Vulnerability Towards Psychopathology in Caregivers of Patients with Dementia/Alzheimer's Disease. *Journal of the College of Physicians and Surgeons Pakistan*, 26(11):892-895.
- Del -Pino-Casado, R., Palomino-Moral, P.A., Pastor-Bravo, M. et al., (2017) Determinants of depression in primary caregivers of disabled older relatives: a path analysis. *BMC Geriatr* 17, 274.
- Derajew, H., Tolessa, D., Feyissa, G.T. et al. (2017) Prevalence of depression and its associated factors among primary caregivers of patients with severe mental illness in southwest, Ethiopia. *BMC Psychiatry* 17, 88.
- Diniz M.M.A *et al.* Comparative study between formal and informal caregivers of older adults. *The Revista Ciencia & Saude Coletiva* 23(1), 3789-3798
- Dolbier CL, Cocke RR, Leiferman JA, Steinhardt MA, Schapiro SJ, Nehete PN, Perlman JE, Sastry J:(2001) Differences in immune responses of high vs. low hardy healthy individuals. *Journal of Behavioral Medicine*, 24, 219–229.
- George R, & Raju, S (2018). Effect of Hardiness Training on Perceived Stress and Ways of Coping among Family Caregivers of Patients with Schizophrenia. *The International Journal of Indian Psychology*, 6(4), 137-144.
- Gort AM, Mingot M, Gomez X, Soler T, Torres G, Sacristán O, Miguelsanz S, Nicolas F, Perez A, de Miguel M, Cabau J (2007) Use of the Zarit scale for assessing caregiver burden and collapse in caregiving at home in dementias. *Int J Geriatr Psychiatry*, 22(10), 957-62.
- Gharehzad Azari Maryam, Ghorban Shirudi Shhre, Khalatbari Javad et al., (2013) Effectiveness of hardiness training on anxiety and quality of life among pregnancy women. *Social and Behavioral Sciences* 84, 1785-1789
- Ghobad Bahamin, Fatemeh Taheri, Alireza Moghaddas, Faramarz Sohrabi, Fariborz Dortaj, (2012) The Effects of Hardiness Training on Suicide Ideation, Quality of Life and Plasma Levels of Lipoprotein (a) in Patients with Depressive Disorder, *Procedia - Social and Behavioral Sciences*, Volume 46, Pages 4236-4243.
- Harmell, A.L., Chattillion, E.A., Roepke, S.K. et al. (2011) A Review of the Psychobiology of Dementia Caregiving: A Focus on Resilience Factors. *Curr Psychiatry Rep*, 13, 219–224,
- Habtamu Derajew, Daniel Tolessa, Garumma Tolu Feyissa & Fikir Addisu (2017). Prevalence of depression and its associated factors among primary caregivers of patients with severe mental illness in southwest, Ethiopia. *BMC Psychiatry* 17:88
- Howlett, M.; Doody, K.; Murray, J.; LeBlanc-Duchin, D.; Fraser, J.; Atkinson, P.R. (2015) Burnout in emergency department healthcare professionals is associated with coping style: A cross-sectional survey. *Emerg. Med. J*, 32, 722–727.
- Huang S. S. (2022). Depression among caregivers of patients with dementia: Associative factors and management approaches. *World journal of psychiatry*, 12(1), 59–76.

## Effectiveness of Hardiness Training on Caregivers of Mentally ill Patients with Relation to Their Productivity

- Hu, P., Yang, Q., Kong, L., Hu, L., & Zeng, L. (2018). Relationship between the anxiety/depression and care burden of the major caregiver of stroke patients. *Medicine*, 97(40), e12638.
- Jamal, Yousaf. (2017). Coping Strategies as a Mediator of Hardiness and Stress among Rescue Workers. *Studies on Ethno-Medicine*. Vol 11. 201-208.
- Jones SL (1996) The association between objective and subjective caregiver burden. *Arch Psychiatr Nurs*, 10(2), 77-84.
- Jonathan A. Weiss, Suzanne Robinson, Stephanie Fung, Ami Tint, Philip Chalmers, Yona Lunskey (2013) Family hardiness, social support, and self-efficacy in mothers of individuals with Autism Spectrum Disorders, *Research in Autism Spectrum Disorders*, Volume 7, Issue 11, Pages 1310-1317.
- Kumar CN, Suresha KK, Thirthalli J, Arunachala U & Gangadhar BN (2015) Caregiver burden is associated with disability in schizophrenia: results of a study from a rural setting of south India. *International Journal of Social Psychiatry*. 61(2):157-63.
- Krok D. (2015). The Role of Meaning in Life Within the Relations of Religious Coping and Psychological Well-Being. *Journal of religion and health*, 54(6), 2292–2308.
- Kowalski CM, Schermer JA (2019) Hardiness, Perseverative Cognition, Anxiety, and Health-Related Outcomes: A Case for and Against Psychological Hardiness. *Psychological Reports*, 122(6), 2096-2118.
- Kurosh Mohamadi Hasel, Amir Abdolhoseini, Puyesh Ganji (2011) Hardiness Training and Perceived Stress among College Students, *Procedia - Social and Behavioral Sciences*, Volume 30, 1354-1358,
- Khoshaba, D. M. and Maddi, S. R. (2001) Relevance of Hardiness assessment and Training to the Military Context. *Military Psychology* 19(1), 61-70
- Kroenke K, Spitzer RL, Williams JB (2001) The PHQ-9: Validity of a brief depression severity measure *J Gen Intern Med*, 16(9), 606-613.
- Lam RW, Michalak EE, Yatham LN. (2009) A new clinical rating scale for work absence and productivity: Validation in patients with major depressive disorder. *BMC Psychiatry*, 9, 78.
- Lydia Triana and Iwan Gardono Sudjatmiko (2021), The role of religious coping in caregiving stress. *Religions*,12, 440.
- Lin N, Simeone RS, Ensel WM, Kuo W. (1979) Social support, stressful life events, and illness: A model and an empirical test. *Journal of Health Social Behavior*. 20,108–19.
- Mahdavi A, Nikmanesh E, Aghaei M, Kamran F, Zahra Tavakoli Z & Khaki Seddigh F (2015). Predicting the level of job satisfaction based on hardiness and its components among nurses with tension headache. *Journal of Medicine and Life*, 8, 93-96.
- Maddi, S. R., Kahn, S., & Maddi, K. L. (1998). The effectiveness of hardiness training. *Consulting Psychology Journal: Practice and Research*, 50(2), 78-86.
- Medrano, M., Rosario, R. L., Payano, A. N., & Capellán, N. R. (2014). Burden, anxiety and depression in caregivers of Alzheimer patients in the Dominican Republic. *Dementia & neuropsychologia*, 8(4), 384–388.
- Mitrani VB, Lewis JE, Feaster DJ, Czaja SJ, Eisdorfer C, Schulz R & Szapocznik J (2006) The role of family functioning in the stress process of dementia caregivers: a structural family framework. *Gerontologist*, 46(1), 97-105.
- Monin JK, Schulz R, Feeney BC, Cook TB. Attachment insecurity and perceived partner suffering as predictors of personal distress. *Journal of Experimental Social Psychology*, 46, 1143–1147.
- Moazedian,A. Ahghar,G. Aref-Nazari, M . (2014), ‘The effectiveness of Hardiness Training on Test Anxiety’, *Iranian Journal of Cognition and Education*. Vol.1, 47-52

## Effectiveness of Hardiness Training on Caregivers of Mentally ill Patients with Relation to Their Productivity

- Masoumeh Sadeghpour, Malek Fereydooni, Moghdam, Mahboobeh Namnabati (2021). The impact of Kobasa and Maddi Hardiness Model on stress and Hardiness of Iranian pediatric nurses: A clinical trial study. *Iranian Journal of Nursing and Midwifery Research*, 26, 42-60
- Noor, Nuzmun and Loganathan, Kathiresan (2014) Socio-Demographic Changes and Its Effects on Agriculture and Health: Issues and Concerns. *Socio-Demographic Changes and its Effects on Agriculture and Health: Issues and Concerns. Social Work*, 5(1), 50-56.
- Om Prakash Singh (2015) National Mental Health Policy of India - New Pathways, New Hope- A Journey on Enchanted Path. *Eastern Journal of Psychiatry* Vol 18, issue 2.
- Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C. A., Charney, D., & Southwick, S. (2007). Social support and resilience to stress: from neurobiology to clinical practice. *Psychiatry (Edgmont (Pa: Township))*, 4(5), 35–40.
- Ornstein, K., & Gaugler, J. E. (2012). The problem with "problem behaviors": a systematic review of the association between individual patient behavioral and psychological symptoms and caregiver depression and burden within the dementia patient-caregiver dyad. *International psychogeriatrics*, 24(10), 1536–1552.
- Paul T. Bartone (2007) Test-retest reliability of the dispositional resilience scale – 15, A Brief Hardiness Scale. *Psychological reports*, 101, 943-944.
- Pearlin LI, Mullan JT, Semple SJ, Skaff MM. Caregiving and the stress process: an overview of concepts and their measures. *Gerontologist*. 30, 583–594.
- Reena George & S. Raju (2019) Perceived Stress, Ways of Coping and Care Giving Burden among Family caregivers of patients with Schizophrenia. *IOSR Journal of Nursing and Health Science*, vol 4, 9-11.
- Sallim AB, Sayampanathan AA, Cuttilan A, Ho R (2015). Prevalence of Mental Health Disorders Among Caregivers of Patients with Alzheimer Disease. *J Am Med Dir Assoc*, 16(12), 1034-41.
- Shepherd-Banigan, M. E., Shapiro, A., McDuffie, J. R., Brancu, M., Sperber, N. R., Van Houtven, C. H., Kosinski, A. S., Mehta, N. N., Nagi, A., & Williams, J. W., Jr (2018). Interventions That Support or Involve Caregivers or Families of Patients with Traumatic Injury: a Systematic Review. *Journal of general internal medicine*, 33(7), 1177–1186.
- Sharma N, Chakrabarti S & Grover S (2016) Gender differences in caregiving among family - caregivers of people with mental illnesses. *World J Psychiatry*. 6(1), 7-17
- Silvia Sörensen, PhD, Martin Pinquart, Dr habil, Paul Duberstein, PhD (2002), How Effective Are Interventions with Caregivers? An Updated Meta-Analysis, *The Gerontologist*, Volume 42, Issue 3, Pages 356–372.
- Sonune, Swapnil P.; Gaur, Anil K.; Shenoy, Anuradha (2021) Prevalence of depression and quality of life in primary caregiver of children with cerebral palsy, *Journal of Family Medicine and Primary Care*, - Volume 10 - Issue 11 - p 4205-4211
- Steger MF, Kashdan TB, Sullivan BA, Lorentz D (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality*, 76(2), 199–228.
- The burden of mental disorders across the states of India the Global Burden of Disease Study 1990-2017 (2020), *Lancet Psychiatry*, 7, 148-61
- Toseland RW, Rossiter CM, Peak T & Smith GC (1990). Comparative effectiveness of individual and group interventions to support family caregivers. *Soc Work*, 35(3):209-17.

## Effectiveness of Hardiness Training on Caregivers of Mentally ill Patients with Relation to Their Productivity

- Tarkhan, M. S.S, Fallah.S, Paknahad. Z, Rezaei. A, Nezamiv.S,Bazleh N, and Sargolzaei M.(2012),‘The effect of Hardiness Training on self-esteem and social adjustment among addicted men in Rudsar of Iran’. *Indian Journal of Fundamental and Applied Life Sciences*. Vol.2 (3), Pp- 94-99
- Triwari A and SunitaBalani, (2013) The effect of intervention program to reduce stress in women employees. *Journal of Humanities and Social Sciences*. Vol.9, pp 27-30
- Venkatesh, B. T., Andrews, T., Mayya, S. S., Singh, M. M., & Parsekar, S. S. (2015). Perception of stigma toward mental illness in South India. *Journal of family medicine and primary care*, 4(3), 449–453.
- Vespa A, Spatuzzi R, Fabbietti P, Penna M, Giulietti MV (2021) Association between care burden, depression and personality traits in Alzheimer’s caregiver: A pilot study. *PLOS ONE* 16(9): e0251813
- Wang J, Xiao LD, He GP, Ullah S & De Bellis A. (2014). Factors contributing to caregiver burden in dementia in a country without formal caregiver support. *Aging Mental Health*, 18(8), 986-96.
- Walke, S. C., Chandrasekaran, V., & Mayya, S. S. (2018). Caregiver Burden among Caregivers of Mentally Ill Individuals and Their Coping Mechanisms. *Journal of neurosciences in rural practice*, 9(2), 180–185.
- Williamson GM & Shaffer DR. (2000) The activity restriction model of depressed affect: Antecedents and consequences of restricted normal activities. *A Handbook of Theory, Research, and Practice*, 173–200.
- Yu Yu, Zi-Wei Liu, Wei Zhou, Mei Zhao, Dan Qui, Yi-Lu Li and Shui-Yuan Xiao (2019) Cutoff of the Zarit Burden Interview in predicting depression and anxiety. *Quality of Life Research* 28, 2525-2533.
- Zarit, S. H., Reever, K. E., Back-Peterson, J. (1980). Relatives of the impaired elderly: correlates of feelings of burden. *The Gerontologist*, 20, 649-655.
- Zunzunegui, M., LlacerCentro, A., & Béland, F. (2002). The Role of Social and Psychological Resources in the Evolution of Depression in Caregivers. *Canadian Journal on Aging / La Revue Canadienne Du Vieillissement*, 21(3), 357-369.

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