# The effect of Hardiness on Personal and Social Adjustment of female-headed Households

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# Abstract

Introduction: Women household heads are extremely vulnerable.

Objective: The study was aimed to determine the effect of hardiness skills training on personal and social adjustment of women household heads in Mashhad, Iran. It was assumed that hardiness skill training was effective on the personal and social adjustment of women household heads.

Methods: This study was carried out using a pretest-posttest control group design. In this study, a sample of 44 women household heads was used, who were supported by the Welfare Organization in Mashhad. The subjects were then randomly divided into two groups composed of 22 individuals. Both the control and experimental groups were asked to complete Bell's Social Adjustment Inventory. Twenty-two subjects in the experimental group underwent a group work training intervention in eight 90minute sessions (twice a week) in accordance with Kobasa's hardiness training protocol. Bell's Adjustment Inventory (adult form) was used as the instrument in the study. Tables and charts and descriptive statistics including frequency, mean, standard deviation and range of variation were used to describe the data. Moreover, the Kolmogorov-Smirnov test was used to determine whether the data was

normally distributed. Due to the normal distribution of the data, t-test, paired t-test and ANCOVA were used.

Results: The hardiness skills training led to the improvement of personal and social adjustment of women household heads. Moreover, the hardiness training intervention effectively improved at-home, health-related, emotional and occupational adjustments among them.

Discussion: The hardiness training as an effective factor in stress management can be effective in improving personal and social adjustment of women household heads.

Key words: Hardiness, personal adjustment, social adjustment, women-headed household

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# Introduction

The family is the smallest social unit, where both men and women manage and advance its affairs by playing biological, psychological and social roles. However, mostly, heavy responsibilities of this unit are solely given to women due to men's absence. Today, the phenomenon of women household heads is rising worldwide for many reasons. These families often have many problems so that the increase of this group of women is regarded as a social problem (Khosravi, 1999). Different studies show that 60% of women are currently a family's sole breadwinner worldwide and 37.5% of the world's households are run by women (Motee, 2010).

Women household heads have been forced to play multiple conflicting roles since they lost their husbands for whatever reason. A large group of these women face poverty, disability and inefficiency, especially in economic affairs of households, such that their self-esteem and mental health are disturbed, putting them at the risk of depression and other disorders (Langlois & Fortin, 1994). Psychologists believe that women household heads have problems in terms of both financial as well as psychological and emotional aspects and experience more stress and anxiety. According to the results of psychological research, the risk of mental illnesses is higher in women household heads who are divorced than in married women and those who live alone (Simmons, 1994).

The power of confrontation, commitment and coping as well as personal and social adjustment in coping with future stresses is important in women household heads due to the fact that they are exposed to many stresses and problems of biological, psychological and social health (Alipour, Sahraeian, Ali Akbari, & Haji Aghababaei, 2012).

Adjustment is a general concept and refers to all strategies that a person uses to deal with stressful life situations, including real or unreal threats (Sadock, Kaplan, & Sadock, 2003). Adjustment is a psychological process by which a person deals with tendencies and challenges of everyday life or controls them (Chen & Silverthorne, 2008). Adjustment leads to an optimal interaction with others, and results in the process of understanding and predicting others' behaviors, and regulating and controlling social behaviors and interactions with others (Attari, Shahni Yeylagh, Koucheki, & Boshlideh, 2005). Those with low personal and social adjustment may be at the risk of psychological and behavioral abnormalities such as insecurity as well as personal emotional and familial problems (Frydenberg & Lewis, 2012). Azin and Mousavi (Azin & Mousavi, 2011) believe personal adjustment as a factor for emotional stability, which results in good mental health, satisfaction with personal life and coordination between feelings, activities and thoughts. He also sees social adjustment as the result of personal adjustment with the social environment, which can occur by either changing oneself or the social environment (Maddi, 2007). Hardiness is among the personality traits that increase the amount of stress in a person, and seems to be an effective factor in improving personal and social adjustment.

Hardiness is a personality and cognitive characteristic, which results in promoted control, resistance and challenge seeking (Maddi, 1999). Hardy people use problemoriented strategies in difficult and stressful conditions. This attribute increases the ability of these individuals against tension, depression, disappointment, mental illnesses and behavioral and functional weaknesses (Abdollahi, Carlbring, Vaez, & Ghahfarokhi, 2016). Kobasa (1979) recognizes hardiness as an effective factor in reducing stress and increasing mental health, and introduces hardy people with three features of control, commitment and challenge. Hardy people believe that they can control situations and significantly dominate stressful situations. Such people look positively at stressful situations and search for self-made resolutions to problems (Bartone, 2000). Hardy people look optimistically at difficult situations and evaluate these situations positively and easily (Cole, Feild, & Harris, 2004). Hardiness leads to increased adjustive and action-oriented behaviors (Bjørn Helge Johnsen et al., 2017). According to Dreyer (Dreyer, 2004), hardiness can play a protective role since it creates beliefs that affect styles of coping with the stressful event. This belief reduces the stressfulness of an event and helps to improve an individual's adjustment. Seaward (Seaward, 1999) believes hardiness to be learnable and states that the attributes of commitment, control, and challenge can be learned.

Women household heads deal with problems in personal and social adjustment due to being at the risk of numerous stressful factors (Hajjari, Amiri, Yar Mohammadiyan, & Malekpour, 2007). It is important to provide appropriate training and support programs to empower women household heads so that they can challenge future problems, changes and stresses. The main question of this study was whether interventions such as hardiness skills training can improve personal and social adjustment in the vulnerable group of women household heads.

# Methods

This study was carried out using a pretest-posttest control group design. In this study, 44 women were randomly selected from the women household heads at the Welfare Organization in Mashhad. The inclusion criteria were being between 30-50 years old, at least two years of selfcare and ability to read and write as well as no history of any specific mental illnesses. The subjects were then randomly divided into two groups of 22 individuals. Both the control and experimental groups were asked to complete Bell's Social Adjustment Inventory (Bell, 1962). The intervention group was subjected to a test variable (hardiness training group work), but no selection and intervention was implemented for the other group as the control. At the end, the dependent variable was evaluated by a post-test (Bell's Adjustment Inventory) (Bell, 1962) in both groups.

The intervention group received the group work training intervention in 8 sessions composed of 90 minutes (twice weekly). The hardiness training protocol was an educational package compiled on the basis of hardiness

### Table 1: Kobasa and Maddi's hardiness training protocol model (2008)

Session	Торіс	Concepts
1	Causing impasse	Familiarity with the concept of stress, familiarity with stress types, different perceptions
2	Different viewpoint	Stress resources, logic of intervention
3	See the event differently	Different perceptions of time, discussion on the hardiness control factor
4	Sink or swim	The Importance of oppositional thinking, effort and challenge with emphasis on the hardiness challenge component
5	Keep calm	Tension relief, mental imagery
6	Dare	Techniques for saying no and expressing emotion
7	Adjustment	Problem solving
8	Restrain	Anger and anxiety control strategies

Table 2: Validity of each of the five subscales of Be	ell's Adjustment Inventory and its total scores
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Subscale	Validity	Subscale	Validity
At-home	0.91	Emotional	0.91
Health-related	0.81	Occupational	0.85
Social	0.88	Total scores	0.94

principles of Kobasa and Maddi (Maddi, 2004, 2007, 2008; Maddi, Harvey, Khoshaba, Fazel, & Resurreccion, 2009). The protocol was trained in 8 sessions of 1.5 hours and in groups twice a week for two months. The important content of the sessions included techniques and skills according to which characteristics of people are considered with a high level of hardiness in cognitive, behavioral and emotional dimensions. In addition, the most important strategies hard-working people choose in facing challenges are considered and implemented for 2 months by the researcher practically and objectively in training women household heads.

#### Instruments

In this study, Bell's Adjustment Inventory (adult form) was used, which contained 160 items, each with three options including "yes", "no", and "I do not know". This form includes five separate measurement subscales of personal and social adjustment that are: a) at-home adjustment, b) health-related adjustment, c) social adjustment, d) emotional adjustment and f) occupational adjustment. The validity of each of the five subscales of the inventory and its total scores is reported in Table 2. These coefficients

were determined by the odd-even correlation and use of the Spearman-Brown prediction formula.

### Results

There was no significant difference between the two groups in examining the demographic variables of age and employment status and income. The mean age was 34.25 in the experimental group and 33.8 in the control group. Moreover, 70% of the women in the experimental group and 65% of them in the intervention group were employed. Further, 40% of the women in the experimental group and 35% of them in the intervention group had an income of

below one million Tomans (Iranian currency). The results of the Kolmogorov-Smirnov test showed that there was no significant difference between the scores observed in the study and the expected scores based on the normal distribution, and the distribution of the components and the overall scale was normal.

Table 3 shows the mean and standard deviation of the pre-test scores of the components including occupational adjustment, at-home adjustment, health-related adjustment, emotional adjustment and social adjustment for both the intervention and control groups. The result of t-test showed no significant difference between the two groups in any of the components at the pre-test stage.

Table 4 shows the mean and standard deviation of the post-test scores of the components including occupational adjustment, adjustment, health-related at-home adjustment, emotional adjustment and social adjustment for both the intervention and control groups. As shown by the results of t-test, there is a significant difference in the mean scores of the post-test of the components including occupational adjustment, at-home adjustment, emotional adjustment and social adjustment between the intervention and control groups. However, the results of t-test showed no significant difference in the mean scores of the posttest of the health-related adjustment component between the intervention and control groups.

Analysis of covariance was used to more accurately investigate the data. The results of the Leven's test showed the equality of the variances of the post-test scores. The results of the covariance analysis are as follows.

The one-way ANCOVA examined the effectiveness of hardiness training on at-home adjustment of the subjects (F=42.886, P<0.1), which indicated the effect of the

Variable		Mean	SD	t	Significant level	Ν
Occupational adjustment	Intervention group	21.25	2.04	0.243	0.809	20
	Control group	21.40	1.84			
At-home adjustment	Intervention group	22.50	3.39	0.659	0.514	20
	Control group	21.90	2.24			
Health-related adjustment	Intervention	16.90	3.39	1.508	0.140	20
	Control group	18.55	2.24			
Emotional adjustment	Intervention group	20.85	1.84	1.449	0.156	20
	Control group	21.85	2.47			
Social adjustment	Intervention group	22.65	2.77	1.652	0.107	20
	Control group	21.10	3.14			

# Table 3: The mean and standard deviation of the scores of the groups at the pre-test stage

# Table 4: The mean and standard deviation of the scores of the groups at the post-test stage

Variable		Mean	SD	t	Significant level	N
Occupational adjustment	Intervention group	19.10	1.58	2.506	0.017	20
	Control group	20.45	1.81			
At-home adjustment	Intervention group	18.20	1.32	6.143	0.000	20
	Control group	20.95	1.50			
Health- related adjustment	Intervention group	16.65	2.79	1.830	0.075	20
	Control group	18.40	3.23			
Emotional adjustment	Intervention group	19.35	1.59	2.249	0.030	
-	Control group	20.85	1.51			
Social adjustment	Intervention group	18.90	1.37	2.156	0.038	20
<i></i>	Control group	20.63	3.31			

hardiness training intervention on the improvement of athome adjustment among women household heads. As shown by the one-way ANCOVA analysis, given that ETA = 0.537, the hardiness training intervention explained 53% of the improvement of at-home adjustment among women household heads.

Moreover, in the one-way ANCOVA analysis of the effectiveness of hardiness training on health-related adjustment of the subjects (F=1.821, P<0.05), given that ETA = 0.47, the hardiness training intervention explained 47% of the improvement of health-related adjustment among women household heads.

Furthermore, the one-way ANCOVA analysis of the effectiveness of hardiness training on emotional adjustment of the subjects (F=8.271, P<0.01), considering that ETA = 0.183, revealed that the hardiness training intervention explained 18% of the improvement of emotional adjustment among women household heads.

The one-way ANCOVA analysis of the effectiveness of hardiness training on enhancing occupational adjustment skills among the subjects (F=9.742, P<0.01), considering that ETA = 0.208, revealed that the hardiness training intervention explained 20% of the improvement of occupational adjustment among women household heads.

The one-way ANCOVA analysis of the effectiveness of hardiness training on social adjustment among the subjects (F=25.197, P<0.01), given that ETA = 0.405, also indicated the 40% impact of the hardiness training intervention on the improvement of social adjustment among women household heads.

Finally, given that ETA = 0.689, the one-way ANCOVA analysis of the effectiveness of hardiness training on overall adjustment among the subjects (F=82.023, P<0.01) demonstrated the 68% impact of the hardiness training intervention on the improvement of overall adjustment among women household heads.

# Discussion

According to the results of this study, training hardiness skills leads to improved overall, health-related and at-home adjustments as well as increased occupational, social and emotional adjustment skills in women household heads.

Eschleman (Eschleman, Bowling, & Alarcon, 2010) in a 180-sample meta-analysis study found that hardiness is a critical factor in controlling the sources of acute stress. Johnsen (Bjørn Helge Johnsen et al., 2013) believes hardiness as a major driver of occupational progression. Furthermore, Johnsen (Bjørn H Johnsen, Hystad, Bartone, Laberg, & Eid, 2014) showed that those with low scores in the three components of hardiness (commitment, control, and challenge) had severe problems in various aspects of mental health. Shepperd and Kashani (Shepperd & Kashani, 1991) in their research showed that those who showed less commitment, control and challenge seeking behaviors in stressful situations suffered more severe symptoms of physical and psychological disorders. Solkova and Tomanek (1994) in their research revealed that hardiness increases individuals' adjustment capability. As a result, these people endure less stress in their daily lives (Moein, Ghiasi, & Masmoudi, 2012). Lee (Lee, 1991) showed that hardiness has a significant positive relationship with psychosocial adjustment. Also, the most important adjustment-related factors are the commitment and challenge components. The results of the study by Filla and Jones (Filla & Jones, 1991) demonstrated a meaningful relationship between hardiness and adjustment among parents. Other variables in this study, which had a significant relationship with hardiness, were social support, preservation of unity among family members and satisfaction with family functioning. Raheb (Raheb, Khaleghi, Moghanibashi-Mansourieh, Farhoudian, & Teymouri, 2016) showed that social work interventions are effective factors in improving the quality of life and personal adjustment of addicts.

Judkins, Arris and Keener (Judkins, Arris, & Keener, 2005) showed that there is a significant negative relationship between hardiness and stress. The control attribute in hardy people increases stress resistance and makes unpredictable stressors less frustrating. In Delahaij, Gaillard and van Dam study (Delahaij, Gaillard, & van Dam, 2010), it was shown that the relationship between hardiness and assessment of stressful situations is moderated by self-efficacy. While in the relationship between hardiness and coping behavior, coping styles are considered as the moderating variable. Subramanian and Vinothkumar (Subramanian & Vinothkumar, 2009) in their study indicated that much role playing, ambiguity in professional role, low professional status and severe working conditions have a direct negative correlation with hardiness and self-esteem. The implications of such a finding suggest that promoting the level of personality hardiness and improving self-esteem can lead to reduced professional stress and enhanced job performance. The findings of the study by Kalantar, Khedri, Nikbakht and Motevalian (Kalantar, Khedri, Nikbakht, & Motevalian, 2013) are indicative of the effect of hardiness training on increasing high school students' hardiness level, and thus improving their psychological health. Yet in another study, Haji Moradi, Poursarrajian and Alizadeh Naeeni (Haji Moradi, Poursarrajian, & Alizadeh Naeeni, 2013) showed a significant negative correlation between control, challenge-seeking and commitment with emotional exhaustion. Hamid (Hamid, 2011) in a study showed that there is a significant positive relationship between hardiness, life satisfaction and hope with the components of hope. Moreover, Moein, Ghiasi and Masmoudi (Moein et al., 2012) showed a positive and significant relationship between the components of hardiness and marital adjustment. Abdollahi (Abdollahi et al., 2016) stated that students containing the hardiness trait experience less anxiety. Johnsen (Bjørn Helge Johnsen et al., 2017) recognizes hardiness as a moderating variable between self-efficacy and performance satisfaction.

## Conclusion

These findings indicate that the hardiness personality trait is one of the essential components of a healthy psychological profile. In addition, the existence of such an important attribute is considered as a protective factor against stress in everyday life as well as in unpredictable and high-pressure conditions. Maintaining personal and social adjustment among women household heads is naturally more difficult due to their challenging conditions, as compared to other women. The heavy and sometimes conflicting responsibilities of these women seriously endanger their personal and social adjustment, and thus their mental health. Accordingly, empowering these women and arming them with psychological and social tools will lead them to further adjustment to problems and therefore, towards having greater mental health.

As a general conclusion from the results of this study, the emphasis is on the fact that the psychological and social empowerment of the women surveyed in this study, regardless of all adversities these women deal with, can motivate them to make correct decisions and obtain greater adjustment as well as physical and psychological health.

#### Limitations

- Insufficient information and resources about women household heads in Iran

- Impossibility to conduct follow-up tests after the research due to the time limit

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# References

Abdollahi, A., Carlbring, P., Vaez, E., & Ghahfarokhi, S. A. (2016). Perfectionism and Test Anxiety among High-School Students: the Moderating Role of Academic Hardiness. Current Psychology, 1-8. doi: 10.1007/s12144-016-9550-z

Alipour, A., Sahraeian, M. A., Ali Akbari, M., & Haji Aghababaei, M. (2012). The relationship between perceived social support and hardiness with mental health and disability status among women with Multiple Sclerosis. Social Psychology Research Quarterly, 1(3), 110-133.

Attari, Y., Shahni Yeylagh, M., Koucheki, A., & Boshlideh, K. (2005). The effect of social skills group training on individual social adjustment juvenile offenders in the city of Gonbad Kavous. Journal of Education & Psychology, 12(2), 25-46.

Azin, A., & Mousavi, S. (2011). The role of school factors on social adjustment of high school students in Fereydunshahr city. Journal of Applied Sociology, 22(1), 183-199.

Bartone, P. (2000). Personality hardiness as a predictor of officer cadet leadership performance. Dept of Behavioral Sciences and Leadership: United States of America, Military Academy, West Point, NY.

Bell, H. M. (1962). The adjustment inventory: Consulting

Psychologists Press Palo Alto, CA.

Chen, J.-C., & Silverthorne, C. (2008). The impact of locus of control on job stress, job performance and job satisfaction in Taiwan. Leadership & Organization Development Journal, 29(7), 572-582.

Cole, M. S., Feild, H. S., & Harris, S. G. (2004). Student learning motivation and psychological hardiness: Interactive effects on students' reactions to a management class. Academy of Management Learning & Education, 3(1), 64-85.

Delahaij, R., Gaillard, A. W., & van Dam, K. (2010). Hardiness and the response to stressful situations: Investigating mediating processes. Personality and Individual Differences, 49(5), 386-390.

Dreyer, N. (2004). The relation of hardiness levels and academic performance in a high-risk adolescent population.

Eschleman, K. J., Bowling, N. A., & Alarcon, G. M. (2010). A meta-analytic examination of hardiness: Educational Publishing Foundation.

Filla, S., & Jones, L. C. (1991). Relation between family members adjustment and hardiness. 14(Feb.), 41-50.

Frydenberg, E., & Lewis, R. (2012). Adolescent Coping Scale: Administrator's manual. The Australian Council for Educational Research: Hawthorn, Australia.

Haji Moradi, A., Poursarrajian, D., & Alizadeh Naeeni, A. (2013). The relationship between hardiness and burnout among the teachers of the universities and higher educational institutes-case study. European Online Journal of Natural and Social Sciences, 2(3 (s)), pp. 500-506.

Hajjari, S., Amiri, S. I., Yar Mohammadiyan, A., & Malekpour, M. (2007). The effectiveness of problemsolving group training on the social adjustment of women with bipolar type of mood disorder. Research in Cognitive and Behavioral Sciences, 4(1-2), 52-58.

Hamid, N. (2011). Relationship between psychological hardiness, life satisfaction and hope with academic performance of pre-university female students. Applied Psychology Journal, 4(4), 101-116.

Johnsen, B. H., Bartone, P., Sandvik, A. M., Gjeldnes, R., Morken, A. M., Hystad, S. W., & Stornæs, A. V. (2013). Psychological hardiness predicts success in a Norwegian armed forces border patrol selection course. International Journal of Selection and Assessment, 21(4), 368-375.

Johnsen, B. H., Espevik, R., Saus, E.-R., Sanden, S., Olsen, O. K., & Hystad, S. W. (2017). Hardiness as a moderator and motivation for operational duties as mediator: the relation between operational self-efficacy, performance satisfaction, and perceived strain in a simulated police training scenario. Journal of Police and Criminal Psychology, 1-9. doi: 10.1007/s11896-017-9225-1 Johnsen, B. H., Hystad, S. W., Bartone, P. T., Laberg, J. C., & Eid, J. (2014). Hardiness Profiles: Defining Clusters of the Dispositional Resilience Scale and Their Relation to Soldiers' Health. Military Behavioral Health, 2(2), 123-128.

Judkins, S., Arris, L., & Keener, E. (2005). Program evaluation in graduate nursing education: hardiness as a predictor of success among nursing administration students. Journal of Professional Nursing, 21(5), 314-321. Kalantar, J., Khedri, L., Nikbakht, A., & Motevalian, M. (2013). Effect of Psychological Hardiness Training on Mental Health of Students. International Journal of Academic Research in Business and Social Sciences, 3(3), 68.

Khosravi, Z. (1999). Evaluation of emotional, psychosocial problems of female-headed households. Center for Women's Participation in the Presidential Office. Tehran-Iran.

Langlois, J., & Fortin, D. (1994). [Single-parent mothers, poverty and mental health: review of the literature]. Sante Ment Que, 19(1), 157-173.

Lee, E. N. (1991). The relationship between hardiness and psychosocial adjustment of persons with a colostomy. The Journal of Nurses Academic Society, 21(2), 218-229.

Maddi, S. R. (1999). Comments on trends in hardiness research and theorizing. Consulting Psychology Journal: Practice and Research, 51(2), 67.

Maddi, S. R. (2004). Hardiness: An operationalization of existential courage. Journal of humanistic psychology, 44(3), 279-298.

Maddi, S. R. (2007). Relevance of hardiness assessment and training to the military context. Military Psychology, 19(1), 61.

Maddi, S. R. (2008). The courage and strategies of hardiness as helpful in growing despite major, disruptive stresses.

Maddi, S. R., Harvey, R. H., Khoshaba, D. M., Fazel, M., & Resurreccion, N. (2009). Hardiness training facilitates performance in college. The Journal of Positive Psychology, 4(6), 566-577.

Moein, L., Ghiasi, P., & Masmoudi, R. (2012). Relationship between psychological hardiness and marital adjustment. Journal of Woman and Society, 2(8), 163- 190.

Motee, N. (2010). Opportunities for children in female householder headers. Unicef: Women Journal (pp. 65-68).

Raheb, G., Khaleghi, E., Moghanibashi-Mansourieh, A., Farhoudian, A., & Teymouri, R. (2016). Effectiveness of social work intervention with a systematic approach to improve general health in opioid addicts in addiction treatment centers. Psychol Res Behav Manag, 9, 309-315. doi: 10.2147/prbm.s110705

Sadock, B., Kaplan, S. V., & Sadock, V. K. (2003). Sadocks Synopsis of Psychiatry: Philadelphia: Williams and Wilkins.

Seaward, B. L. (1999). Managing stress: Principles and strategies for health and wellbeing: Jones & Bartlett Pub.

Shepperd, J. A., & Kashani, J. H. (1991). The relationship of hardiness, gender, and stress to health outcomes in adolescents. Journal of personality, 59(4), 747-768.

Simmons, S. (1994). Quality of life in community mental health care--a review. Int J Nurs Stud, 31(2), 183-193.

Subramanian, S., & Vinothkumar, M. (2009). Hardiness personality, self-esteem and occupational stress among IT professionals. Journal of the Indian Academy of Applied Psychology, 35, 48-56.