



**EXAMINING THE EFFECTIVENESS OF MATURITY MENTAL HEALTH TRAINING  
ON MENTAL HEALTH AND ACADEMIC PROGRESS OF SHIRAZ CITY GIRL  
STUDENTS OF HIGH SCHOOL GRADE**

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**ABSTRACT**

**Introduction:** Several studies have been performed about mental health, maturity health training and academic achievement, but studies about examining the relation of maturity mental health and mental health and academic achievement are very few. The present study was conducted with the aim of examining this relation among Shiraz city girl students of high school grade in academic year 2015-2016. **Methodology:** This study is of semi-experimental type which was conducted as a field trial (effectiveness) and in training intervention form. The present study sample, based on Morgan table, was selected as 387 girl students of Shiraz city high schools from 51234 -person's statistical sample and by simple random sampling method. For measuring mental health of the sample, Goldberg general health 28- question inventory was used, so that after passing 2 months from primary response and performing 8 sessions of training, again the mentioned questionnaire was completed by the sample and the obtained scores were compared with previous scores. Also, for evaluating academic achievement, their average of 1<sup>st</sup> and 2<sup>nd</sup> semesters of academic year 2015-2016 was compared. The research data were analyzed and evaluated with T-test and multivariate variance analysis. **Findings:** This study has shown that there is a significant difference between mental health and students' academic achievement before and after maturity mental health trainings. **Conclusion:** Regarding the direct and determining impact of maturity health training on two mentioned main variables regarding analysis of the present study findings, necessity of planning and accurate implementation of maturity mental health trainings is reminded and emphasized.

**KEYWORDS:** Maturity mental health training, academic achievement, mental health.

**INTRODUCTION**

Adolescence is considered one of the most important eras of each individual's life and maturity is the most change and evolution of this era (Najafi, Mozaffari, & Mirzaii, 2012). This period is the preface of physical, mental and social evolutions and maturity occurs in it. Maturity is a period for transition from childhood to adulthood and it is time of acquiring fertility power (Russell & Robert, 2005). It has been estimated that till 2009 the world population will reach 6,775 milliard people, among which about 1.5 milliards will be in age range of 10-25 years old (Susan, 2009). Physical changes relating to maturity are due to reaction of hypothalamus – Hypophysis pivot and begin at the end of the individuals first decade of life (Žukauskaitė, 2005). Maturity causes physiological, biological, social and psychological changes (Reynolds & Juvonen, 2012). Many questions are posed for adolescent girl and boys,

but they remain unanswered (Stattin, Kerr, & Skoog, 2011). Timely training, to a great extent, will be a prohibiting factor for adolescent deviations. Maturity training should be provided before maturity start and regarding gender so that adolescents are able to solve their problems (Cavanagh & Riegle-Crumb, 2007). It seems that negative impacts of maturity on girls are more than boys (Oldehinkel, Verhulst, & Ormel, 2011). If required trainings of maturity health are not provided, in future they may become mothers who don't enjoy health awareness and sufficient self-confidence and will deliver unaware children to the society (Pourhassan, 2002.).

Since, girls in these ages usually don't talk about their problems with parents and their relatives, training courses of schools provides the ground for presenting questions and solving problems of maturity period (Hassanzade Bashtian & Lashgardoust, 2001).

Answering problems of maturity period through nurses is more effective than training by mothers and teachers (Maaleki, Delkosh, Hajiamini, Ebaadi, Ahmadi, & Ajalli, 2010). Students' academic achievement is one of important indicators in evaluating education. Therefore, examining the variables which are correlated to academic achievement in various lessons is one of main issues of research in education system (Farahani, 1994). One of theories by which scholars have studied is the theory of maturity health training in adolescence period. One of important variables which is influenced by maturity mental health is adolescents mental health. Experts of world health organization have considered mental health as the capability of coordinated and harmonic relation with others, change and modification of individual and social environment and solving personal conflicts and tendencies in a logical, just and suitable way (Salehi, Bagheri Yazdi, Soleymanizade, & Abbaszade, 2007). The mental dimension of health has been less considered in most countries of the world (especially third world countries). Yet, a look at published statistics in the field of mental disorders in various countries of the world indicates crisis in mental health status. The results of epidemiological studies of mental disorders performed in Iran indicate that prevalence of this disorder varies between 11.9 to 30.2% (Haghshena, 2003).

Many studies have examined maturity mental health, maturity health and its shortages and challenges especially in third world countries and also maturity mental health training and its impacts on academic achievement and the impact of mental health on academic achievement. In his study, Jackson has concluded that the less the rate of maturity health, the stronger is its negative impact on the adolescent academic achievement (Jackson, 2009). Saeid Ali *et al.* in their research showed that still there is lack of knowledge and awareness about maturity and health problems among adolescent girls (Ali, Azam Ali, Waheed, & Ali Memon, 2006). Kazi *et al.* in the report of study performed by population council of world health organization in south Asia showed that adolescents require more awareness about sexual health such as physiologic changes in maturity period (Qazi, Bott, Jejeebhoy, Shah, & Puri, 2003). From his study, Majed concluded that there is a great need to multidisciplinary programs in schools for giving correct answer in due time to questions of adolescents passing their maturity period (Majid, 1995).

In examining the relation of mental health training and academic achievement, Zareh achieved a high correlation among these two variables (Zare, 2001). Agha Yousefi *et al.* by analyzing their data concluded that maturity health training has a positive impact on girls mental health (Aghayousefi, Alipour, & Najjari Hasan Rad, 2009). Keramati *et al.* found maturity health raining programs effective on awareness rate and type of attitude of girl adolescents and increasing their genera health (Keramati, Esfandyari, & Eshratabadi, 2009). Studies of

Makrai *et al.* confirmed significant impact of maturity health training on average score of students' self-respect (Makari, Kheirkhsh, Neisani Samani, & Hosseini, 2013). Ferdosi study showed that maturity mental health is effective on mental health level and academic achievement (Asadi, 2015). Alimoradi and Symbor in their meta-analysis found out that in recent years due to spread of trainings relating to maturity by schools, families and media, relative increase of awareness rate, relative improvement of adolescents attitude towards maturity changes and also relative improvement of their performance in the field of issues relating to maturity health has been reported (ALIMORDI & SIMBAR, 2014). Asadi, also, showed the positive and direct significant relation between mental health and spiritual health and academic achievement of pre-university students (Asadi, 2015).

Training promotion of mental health through maturity mental health could be considered one of the most effective methods for making schools safe and preventing from damages among students. So, main question of this study is that is maturity mental health training effective on mental health and academic achievement of Shiraz girl students in high school grade? The main aim of the present study is to examine the impact of maturity mental health training on academic achievement and mental health of Shiraz girl students in high school grade.

## METHODOLOGY

This study is a semi-experimental study and of field trail (effectiveness) type which was performed as training intervention. The statistical population includes all Shiraz city high school girl students equal to 51234 persons. The sample based on Morgan table includes 387 and was selected by simple random sampling method. For measuring considered variables 28-question Goldberg general health questionnaire (GHQ=28) is utilized which is a self-reporting questionnaire which is used in clinical collection with the aim of detecting people who have a mental disorder (Taghavi, 2001). This questionnaire has 4 subscales: subscales of somatic symptoms, anxiety, social withdrawal and depression. Validity factor of Persian version of general health 28-item questionnaire has been estimated 91% by retesting with time space of 7 to 10 days on 80 persons group which is significant in the level of one thousandth (Palahang, Nasr, & Shahmohammadi, 1996). Also, for obtaining the students' academic achievement their last term general average will be used. for analyzing data of this study descriptive statistical methods like calculating frequency, percent, meant and standard deviation and also t-test and multivariate variance analysis test was utilized using SPSS software version 17 and for all hypotheses significant level of  $\alpha = 0.05$  has been considered.

### Findings

Hypothesis 1: there is a significant relation between students' mental health before and after maturity mental health training.

This hypothesis is tested in two stages. In the 1<sup>st</sup> stage, total score of mental health in individuals is tested using t-test and in the 2<sup>nd</sup> stage since mental health has 4 dimensions, for reducing possible errors, multivariate variance analysis test is used. In the following table, the stages of testing this hypothesis is observed.

**Table 1: The results of comparing mental health in the students before and after training.**

| variable      | group           | mean  | standard deviation | mean difference | t     | freedom degree | significance |
|---------------|-----------------|-------|--------------------|-----------------|-------|----------------|--------------|
| mental health | before training | 47.13 | 12.24              | 4.33            | 2.403 | 75             | 0.01         |
|               | after training  | 42.80 | 9.84               |                 |       |                |              |

According to contents of table 1, individuals mental health mean after maturity mental training (47.13) is more than mental health mean before that (42.80) and two groups mean difference is 4.33 that regarding  $t=2.513$  with freedom degree 75 in level of  $P=0.01$ , we can say that individuals mental health after maturity mental health training is more than before it. Therefore, the 1<sup>st</sup> hypothesis is confirmed.

In the second stage of testing this hypothesis, since mental health has 4 dimensions, for reducing possible error of t-test, multivariate variance analysis was used for comparing mental health dimensions in the students that after examining presumptions of MANOVA test such as M. box and Levin, the results of multivariate test of mental health dimensions have been shown in the following tables.

**Table 2: The results of multivariate variance analysis of mental health dimensions in the students before and after maturity mental health training.**

| test name      | rate  | F    | df | df  | significance |
|----------------|-------|------|----|-----|--------------|
| Pillay effect  | 0.075 | 2.97 | 4  | 147 | 0.02         |
| Lambadi Wilkes | 0.925 | 2.97 | 4  | 147 | 0.02         |

As it is observed in table 2, significance level of Pillay effect and Lambadi Wilkes test indicates that there is a significant difference in respect of at least one of variables of somatic symptoms, anxiety, social

withdrawal and depression among students before and after maturity mental health training. Here, the results of impacts between subjects are specified in table 3.

**Table 3: The results of impacts between subjects on mental health dimensions scores mean in the students before and after maturity mental health trainings.**

| dependent variable | total squares | df | square mean | F     | significance | statistical potency |
|--------------------|---------------|----|-------------|-------|--------------|---------------------|
| somatic symptoms   | 91.60         | 1  | 91.60       | 7.62  | 0.006        | 0.78                |
| anxiety            | 47.53         | 1  | 47.53       | 4.326 | 0.04         | 0.54                |
| social withdrawal  | 5.158         | 1  | 5.158       | 0.513 | 0.475        | 0.11                |
| depression         | 63.18         | 1  | 63.18       | 5.613 | 0.02         | 0.65                |

As it is observed in table 3, regarding rate of F and its significance level, there is a significant difference between students before and after maturity mental health training, in respect of somatic symptoms ( $p < 0.05$ ), anxiety ( $p < 0.05$ ) and depression ( $p < 0.05$ ). Regarding means of two groups (table 1-4) we can claim that the rate of physical symptoms, anxiety and depression in

individuals is more before training. The statistical potency indicates sufficiency of sample volume.

**Hypothesis 2:** There is a significance difference between academic achievement of students before and after maturity mental health training.

**Table 4: The results of comparing academic achievement in students before and after training.**

| variable             | group           | mean  | standard deviation | t     | significance |
|----------------------|-----------------|-------|--------------------|-------|--------------|
| academic achievement | before training | 18.13 | 6.11               | 6.105 | 0.01         |
|                      | after training  | 16.80 | 5.19               |       |              |

In table 4, it is observed that mean of individuals mental health after maturity mental health training (18.13) is more than mean of mental health before that (16.80) that

regarding  $t=6.105$  in significance level  $P=0.01$ , we can say that individuals academic achievement after maturity

mental health training is more than before training, so the second hypothesis is confirmed.

## DISCUSSION

According to findings of this study, there is a significant difference between students' mental health before and after maturity mental health training. These results are consistent with findings of Asadi (Asadi, 2015), Ferdosi (Ferdosi, 2014), Makari et.al (Makari, Kheirkhsh, Neisani Samani, & Hosseini, 2013), Keramati et.al (Keramati, Esfandyari, & Eshratabadi, 2009) and Agha Yousefi et.al (Aghayousefi, Alipour, & Najjari Hasan Rad, 2009). We can confer that the adolescent in maturity period besides physical changes faces with a series of mental changes and symptoms that identifying these symptoms by parents and teachers could be effective in better understanding and more suitable contact with the adolescent. His relation with teachers and parents turns from an adolescent relation in the beginning of adulthood. Important and sensitive role of parents in this stage is considerable. What is observed in these results is that lack of awareness and accurate attitude of adolescents towards maturity and its risks causes their mental health level degradation and for obviating this shortage, providing necessary trainings is required. On the other hand, according the results of the present study, there is a significant difference between students' academic achievement before and after maturity mental health training and their progress is promoted after receiving required trainings. These findings are also consistent with findings of Asadi (Asadi, 2015), Ferdosi (Ferdosi, 2014), Jackson (Jackson, 2009) and Zareh (Zare, 2001) studies. Lack of adolescents' perception by competent people causes the adolescent to move to incompetent resources and often provides the ground for abnormal behaviors. The vital role of key persons is as follows: respect, presenting interest and affection, being beside him not in front of him, being friends, creating self-respect in the adolescent so that he doesn't need showing himself through risky and adventuresome behaviors that one of which is reduction of academic performance. Dominating these problems through providing required trainings for students and their families could cause increasing of academic achievement level.

Limitations of this study included: 1- shortness of 2<sup>nd</sup> academic semester, 2- dropout of participators in some sessions, 3- severity of authorities of cities education departments and school directors in performing the research.

Suggestions of this study are placed in two applied and research groups. Applied suggestions: 1- required training to families about adolescents problems in maturity period, 2- utilizing skillful personnel dominant in required knowledge especially religious knowledge and psychology in high schools, 3- holding continuous courses for students about maturity and its issues, 4- creating consulting bases for students in holidays

especially in summer, research suggestions include: 1- performing similar study among boy high schools students, 2- performing studies about parents and families awareness about maturity and its problems, 3- performing studies about other psychological variables among adolescent students, 4- conducting this study in other cities for comparing findings.

## CONCLUSION

Regarding the fundamental impact of two variables of mental health and academic achievement on all future life components of an adolescent and regarding findings of the present study which inevitably confirms maturity health trainings on two mentioned fundamental variables. Necessity of informed and applied planning and compassionate implementation along with detailed monitoring of performances feedback becomes clear.

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