

A Survey on the Relationship between Quality of life and Happiness among Children and Adolescents under the Supervision of Welfare Organization of Ahwaz in 2017

Run title: Relationship between quality of life and happiness among children and adolescents under the supervision of welfare organization

Maryam khormehr¹, Azam Honarmandpour², Mohammad adineh³, Azam Jahangirimehr⁴, Elham Abdolahi Shahvali^{1*}

¹. MSc of nursing, Department of nursing, Shoushtar Faculty of Medical Sciences, Shoushtar, Iran

² MSc of Midwifery, Department of Midwifery, Shoushtar Faculty of Medical Sciences, Shoushtar, Iran

³. Nursing care Research center in chronic diseases, school of nursing and Midwifery, Ahwaz Jundishapur University of Medical Sciences, Ahwaz, Iran.

⁴ MSc of Biostatistics, Department of Biostatistics, Shoushtar Faculty of Medical Sciences, Shoushtar, Iran.

*Corresponding author: Elham Abdolahi Shahvali

Address: Rajai Street West. Shoushtar Faculty of Medical Sciences, Shoushtar, Khuzestan, Iran.

ABSTRACT

Background: Childhood and adolescence is one of the most important, most sensitive and also most decisive periods of human life. Events during this period, for children and adolescents under the supervision of the welfare organization can lead to behavioral-cognitive and emotional problems and face the natural process of transition from this period with serious challenges. This study was conducted to evaluate the relationship between quality of life and happiness among children and adolescents under the supervision of welfare organization of Ahwaz in 2015.

Methodology: This descriptive-analytical cross-sectional study was conducted on 75 children and adolescents aged 8-18, under the supervision of the welfare organization, using available sampling method. The data collection tool was a demographic information questionnaire, the Kidscreen quality of life and the Oxford happiness. The collected data were analyzed using SPSS software version 20 and independent t-test, Pearson correlation coefficient, Spearman and Chi-square tests. P value less than 0.05 was considered significant.

Results: The results showed that there was a significant and direct correlation between quality of life and happiness in children and adolescents under the supervision of the welfare (P <0.001 and r = 0.656). All aspects of the quality of life in the group who did not show happiness reported to be lower.

Conclusion: The quality of life of children and adolescents under the supervision of welfare is related to their happiness. The effect of the use of pharmaceutical supplements/drugs and its relationship with the happiness of children should be studied in future.

Keywords: Happiness, quality of life, children, adolescents.

1. INTRODUCTION

49
50 In recent decades, the goal of social development programs has been to improve the quality of life and
51 well-being of individuals including children and adolescents [1]. One of the critical issues currently is the
52 establishment of a healthy physical and social environment for children and adolescents, because factors
53 that disturb their life environment will also affect their health, Therefore societies should provide the
54 appropriate environment for care, education and socialization of children and adolescents [2]. The
55 Geneva Declaration on the Rights of the Child of 1924 and the rights of the child, adopted by the General
56 Assembly of the United Nations on November 20, 1959, stipulated that children need special care,
57 including proper legal protection, because they do not reach full development until adulthood [3].

58
59 Adolescence is also considered to be one of the most important, most sensitive and at the same time
60 most decisive periods of human life [4]. Adolescence begins around the ages of 9 and 12, and the WHO
61 defines the age of adolescence as between the ages of 11 and 21 [3]. This process is associated with
62 rapid physiological changes, the ability to think abstractly; increased imbalance and instability of mood;
63 concern for the future; accountability; the endeavor to obtain approval and confirmation from others,
64 especially age mates and imagination. These changes can help the normal growth of the adolescent, but
65 can also lead to behavioral, cognitive and emotional problems. These problems, especially when
66 accompanied by other harmful factors such as indifferent parental upbringing or a divorce and separation
67 at home, will undoubtedly jeopardize adolescences and greatly complicate the natural process of
68 overcoming such life challenges [4]. Children who have lost their parents or been deprived of a normal
69 family upbringing for other reasons are commonly held in orphanages around the world [5]. Studies show
70 that the population of children living in such institutions is increasing every year, has tripled since the
71 1980's currently numbers more than 530,000 children in the United States [6]. The main reasons for
72 keeping these people in these centers can be parents' deaths, physical-psychological problems, parental
73 divorces, familial and financial problems [5] which can lead to a wide range of problems including low self-
74 esteem, an increased risk of physical and psychological damage, especially depression and other similar
75 disorders [7,8]. Research has shown that the early years of life have a major role in forming an
76 individual's personality and the manner in which self-identity and self-esteem establishes itself at this age
77 manifests throughout the person's lifetime, and environment and quality of life can powerfully affect the
78 child's interactions and personal attachments [9]. The study by Fawzy and Fouad (2010) showed that
79 prevalence of mental disorders in the children in pediatric care was 23% for depression, 45% for anxiety,
80 23% for self-confidence issues and 61% for developmental disorders. Moreover, emotional disorders
81 have reported to be high among the pediatric children [11] Children's and adolescents' quality of life will
82 affect various aspects of their life including their happiness [12]. The WHO defines this quality of life as
83 "their mental and mutable sense on their health," and believes that this feeling reflects the wishes, hopes
84 and expectations of children and adolescents in relation to current and future of their life [13]. From the
85 viewpoint of Vinhon, happiness refers an individual's judgment of how desirable quality of life is as a goal.
86 Happiness means how much a person loves his or her life [14].

87
88 Also, one of the factors that can affect the quality of life and the condition of children's development is the
89 use of pharmaceutical supplements, such as multivitamins and drugs that affect the development of the
90 child, which most families now use as advisers to their physicians. However, this is not evident in the
91 welfare centers or it is not fully completed. According to Sing and Ellis, (1998) psychopharmacology is a
92 rapidly developing area in child and adolescent psychiatry. They also suggested that it is important for
93 clinicians to work with children with psychiatric disorders to remain up-to-date with the research literature
94 in this field. It will be helpful for the clinicians to have a working knowledge about pharmacology of
95 psychiatric drugs for treating the childhood problems. Singh et al. mentioned that children differ widely in
96 terms of the drug dose that produces a given effect. Thus, clinicians must have a good knowledge of
97 current pharmacodynamic principles to understand a child's response to psychotropic drugs (Dingemans
98 et al., 1988; Paxton & Dragunow, 1993). According to Singh and Ellis the clinical import of
99 pharmacogenetics is that clinicians should be aware of the possibility of differences in drug response and
100 dose requirements among children from various ethnic and racial groups. Therefore, the inappropriate
101 use of pharmaceutical supplements for well-being children can be one of the important factors influencing
102 the development of these children and, accordingly, their quality of life. This is very complex and
103 specialized area and has not been covered here.

105 Happiness is a time when people's life activities have the highest degree of convergence or harmony
106 with their deeply-held values, abilities and effectiveness in different areas of life, and they are committed
107 to these values and abilities. In such conditions, there is a sense of vitality and confidence. Waterman has
108 said this state as the manifestation of the individual hope and high correlation between it and the
109 dimensions of happiness [15]. Since life in orphanages can have a great impact on the emotional state of
110 children and adolescents and make them prone to psychiatric and emotional disturbances, identifying the
111 characteristics and problems that result from living in orphanages can provide an appropriate context for
112 preventing and mitigating their effects. [5], hence the present study aimed at investigating the relationship
113 between quality of life and happiness among children and adolescents under the supervision of the
114 welfare organization of Ahwaz in 2015.
115

116 2. MATERIALS AND METHODS

117
118 The present study is a descriptive-analytic study investigating the relationship between quality of life and
119 happiness in adolescents and children under the supervision of a welfare organization in Ahwaz in 2015.
120 The research samples consisted of 75 children and adolescents aged 8-18 who have been residing in
121 Ahwaz's orphanages for more than one year. Participants unwilling to take part in or continue in the study
122 were excluded from results. The data collection tool consisted of a questionnaire for demographic
123 information, the Kidscreen quality of life, and the Oxford happiness questionnaire. The demographic
124 information questionnaire included information such as age, sex, degree of education, and duration of
125 stay in the orphanage. The Kidscreen questionnaire covered the participant's previous week and
126 investigated five aspects of the participant's quality of life. One of the aspects is physical aspect with five
127 items covering physical activity and levels of energy and fitness. Another one is psychological wellbeing
128 with seven items evaluating positive emotions, satisfaction, and balanced feelings. The social dimension
129 with seven items, covering closeness and autonomy in parental relationships, home environment,
130 freedom corresponding to the participant's age, and availability of financial resources. Then social support
131 and age mates with four items examining the participant's relationship with peers and another four, school
132 environment aspect, looked at mental capability, including cognitive capacity, learning, concentration and
133 feelings about school. This tool is based on a 5-point Likert scale that ranges from "never" to "forever" and
134 shows the frequency and intensity of a particular behaviour, feeling or attitude [16]. In the research of Nik
135 Azin et al. (2012), the Cronbach's alpha coefficients for all dimensions except for the school environment
136 were higher than 0.77 and the two-week re-test coefficients for all dimensions were strong ($p < 0.01$) (p
137 < 0.01) [17]. To investigate happiness, the Oxford happiness questionnaire was developed and provided
138 by Argya and Lew in 1989 [18]. The questionnaire consists of 29 questions with a 6-point Likert scale,
139 which ranges from "totally disagree" to "totally agree". After collection, Data were analysed by SPSS
140 software (version 20). Independent t-test, Pearson correlation coefficient and Spearman and Chi-square
141 were used to compare the differences between the groups. P value less than 0.05 was considered
142 significant.
143

144 3. RESULTS

145
146 The study were included 75 children, of which (40%) were 30 girls and (60%) 45 were boys. The mean
147 age of the girls was 12.06 ± 3.07 years and the mean age of boys was 11.84 ± 3.4 and the mean age of
148 all individuals was 11.93 ± 3.24 Age did not show a significant correlation to happiness and quality of life
149 ($P > 0.05$). Furthermore, boys and girls showed similar levels of happiness and life satisfaction ($P > 0.05$).
150 The average happiness in all samples (44.97 ± 15.73) was in the range of (14-74), of which 45 (60%)
151 reported happiness. Children and adolescents' mean quality of life (80.57 ± 8.92) showed range of
152 changes (56-97). Quality of life was shown to be (17.49 ± 3.26) for physical health, (22.76 ± 2.26) for
153 emotions and mood in general, (12.72 ± 2.51) for family relationships and leisure, (12.72 ± 2.51) for
154 relationships with friends, and ($14/01 \pm 3.12$) for school.
155

156 Data distribution was reported normal using the Kolmogorov-Smirnov test ($P > 0.05$). There was a
157 significant and direct relationship between quality of life and happiness ($P < 0.001$ and $r = 0.65$), as well as
158 between the aspects of quality of life, including physical activity and health ($p = 0.001$, $r = 0.50$), and
159 friends with happiness ($P < 0.001$ and $r = 0.55$). There was a statistically significant difference between

160 those that reported happiness and those that did not in terms of physical and health activities ($P < 0.001$)
 161 and friends ($P = 0.002$). Quality of life in all categories was lower in the group that did not report
 162 happiness. There was a direct and significant relationship between happiness and the category related to
 163 school life ($P < 0.001$ and $r = 0.371$), but the category related to family and leisure showed no significant
 164 relationship to happiness and emotions ($p < 0.05$). Mean quality of life was differed significantly between
 165 those that reported happiness and those that did not ($P < 0.001$) (Table 2).

166
 167 **Table 1. Frequency and percentage of frequency of demographic information of participant**
 168 **samples**
 169

Demographic information		Number(percentage)
Gender	girl	30(40/0)
	boy	45(60/0)
Age	8-9	27(36/0)
	10-11	13(17/3)
	12-13	6(8/0)
	14-15	12(16/0)
	16-17	17(22/7)
Education level	elementary School	44(58/70)
	guidance school	14(21/33)
	high school	15(20/00)

170
 171 **Table 2. Mean Scores of Quality of Life Dimensions in the case group.**
 172

Quality of Life Dimensions	happiness	Number	Mean and standard deviation	t-test	p-value
physical health	NO	30	(15/87±2/66)	-3/84**	0/000
	Yes	45	(18/58±3/2)		
Emotions	NO	30	(22/50±2/56)	-0/810	0/421
	Yes	45	(22/93±2/04)		
Family and leisure	NO	30	(12/40±2/64)	-0/899	0/371
	Yes	45	(12/93±2/42)		
friends	NO	30	(12/26±3/54)	-3/27**	0/002
	Yes	45	(14/46±2/28)		
school and learning	NO	30	(13/16±3/44)	-1/95	0/055
	Yes	45	(14/57±2/75)		
total quality of life	NO	30	(76/20±10/30)	-3/76**	0/000
	Yes	45	(83/48±6/41)		

173 ***significant at the level of 0.01; *significant at the level of 0.05*

174 4. DISCUSSION

175
 176
 177 The findings of the present study show that there is a direct and significant relationship between
 178 happiness and quality of life. Kajbaf et al. (2011) conducted studies focused couples in Isfahan's
 179 counseling centers, providing them with psychological training in fostering happy attitudes to life. It was
 180 found that couples' quality of life increases with happiness education [19]. Islami and colleagues (2011)
 181 also noted a strong relationship between happiness and quality of life. In their study aimed to investigate
 182 the effectiveness of a group-based reality-therapy approach on happiness and quality of life for Mashhad
 183 teenagers who had poor parental upbringing, reported that a poor family environment is strongly
 184 correlated to a loss of happiness and general sense of dissatisfaction in life [16]. This is consistent with
 185 the result of the present study. This study found no significant difference between girls and boys
 186 regarding happiness and quality of life. Demographic happiness studies by *Safari* (2009) and Siamian
 187 (2012) also concur, finding no observable relationship between gender and happiness in interpersonal
 188 communication [20, 21].
 189

190 This study found a positive and significant relationship between happiness and physical health. These
191 findings are supported by Shakirinia and colleagues (2015), who showed that increasing physical activity
192 and physical health led to higher levels of happiness [22]. Rodriguez-Ayllon et al. (2017) stated that
193 increased levels of physical fitness could have significant benefits to the mental health of children and
194 increase their mental happiness [23]. This is consistent with the result of the present study. According to
195 the findings of this study, there was a positive and significant relationship between happiness and
196 relationships with friends, that is, those who had higher happiness could have better and more creative
197 interaction with their friends, classmates and community. This is consistent with - Meyzari Ali et al. (2016)
198 found in their study that happy people have a more cooperative disposition and derive greater satisfaction
199 interacting with those who live around them. They also stated that happiness, as one of the basic positive
200 emotions, has a decisive role in creating altruism and empathy in individuals and society [24]. Montazeri
201 (2012) stated that happy people enjoy better social relations than others [25]. Nasratinejad and
202 colleagues (2015) showed in their research that participation has the greatest impact on the happiness of
203 young people, and young people who have a stronger social participation have report higher levels of
204 happiness [26]. This is consistent with the result of the present study. The school and learning dimension
205 also directly and significantly impacted happiness and quality of life. That is, people who had higher levels
206 of happiness had more academic achievements and learned more effectively at school. In Saffari's study
207 (2013), which investigated the relationship between happiness and self-confidence and academic
208 achievement in students, showed that happiness leads to more academic achievements [27]. kimarati
209 (2013), in his research on the relationship between social capital and happiness with academic
210 achievements in female high school students, showed similar results [28]. Neaz Azeri (2012), in her study
211 examining the effect of happiness and vitality on the academic achievement of high school students in
212 Sari, reported that a lively and caring environment greatly impacted the flourishing of talents, creativity,
213 dynamic and creative training, academic achievement, health and happiness of students, so it is clear
214 that vitality can powerfully influence students' mental and physical wellbeing [29] The "feeling and mood"
215 and "family and leisure time" did not show a strong relationship to happiness. Shakiba's study (2011),
216 showed that a warm and friendly family environment as well as good emotional relationships between
217 family members improves children's mental health and promotes a happy and healthy personality
218 whereas disrupted families and a lack of emotional support from parents cause social disturbances and
219 psychological problems as well as a weak mental state [30]. The results of Islami's (2015) and kardeh kar
220 's (2011) study, which examined the relationship between leisure time with happiness and the self-
221 confidence of teachers, showed that leisure time has an impact on the happiness and self-confidence of
222 teachers, meaning that engaging in more leisure activities, namely physical exercise, increases levels of
223 happiness and positivity [31, 32]. Also, kardeh kar reported that there is a significant relationship between
224 leisure time and all dimensions of happiness, which include life satisfaction, self-esteem, mental well-
225 being, satisfaction, and positive mood [32]. The results of these studies contradict the findings of this
226 study. The reason for this discrepancy could be differences in age, place of residence and living
227 conditions of the participants. The current study showed that participants who reported low happiness
228 also showed lower results in all aspects of quality of life. The results of published research by Islami
229 (2011) [16], Meyzari Ali (2016) [24], Kajbaf (2011) [19], Shakirnia (2015) [22], Nasratinejad (2015) [26]
230 showed a significant relationship between happiness and quality of life subscales, which is consistent with
231 the results of this study.

232

233 5. CONCLUSION

234

235 In general, this study indicates that increasing the happiness of children and adolescents under the
236 supervision of welfare organizations can be an effective step in improving their quality of life in all
237 aspects. It is suggested that in a future study, the extent of the use of pharmaceutical supplements and its
238 relationship with the quality of life and happiness of children covered by well-being should be examined.

239

240

241

242 CONSENT DISCLAIMER

243

244 As per international standard or university standard, patient's written consent has been collected and
245 preserved by the author(s).

246

247 **ACKNOWLEDGMENTS**

248

249 This study is part of a student thesis for obtain a master's degree in nursing, We appreciate Deputy of
250 Research and Technology of Khorasgan Branch of Islamic Azad University and appreciate Deputy of
251 Research and Technology of Ahvaz Jundishapur University of Medical Science. Thanks and appreciation
252 of all the participants and managers of the supervision of the welfare organization Ahwaz who have
253 cooperated in this research.

254

255 **CONFLICT OF INTEREST**

256

257 The authors had not any financial or personal relationships with other people or organizations during the
258 study. So there was no conflict of interests in this article.

259

260 **REFERENCES**

261

- 262 1. Adineh M, Toulabi T, Pournia Y, Baraz Sh. The Effect of Family Presence during Pediatric Intensive
263 Care Unit Bedside on Family General Health: a Clinical Trial Study. *Int J Pediatr.* 2016;4(5):1809-
264 17.
- 265 2. Byat M, Akbar sharifi T, Nazari jeyrani M, SHahrivr Z, Haghani H. Behavioral Problems in 7-11
266 Years old Children in Foster Care Centers. *IRAN JOURNAL OF NURSING (IJN).* 2006;19(46):53-
267 60.
- 268 3. Crone E, Dahl R. Understanding adolescence as a period of social–affective engagement and goal
269 flexibility. *Nat Rev Neurosci.* 2012;13:636-650.
- 270 4. Motashakery M. Thesis on the Effectiveness of Life Skills Training on Reducing Aggression among
271 Unmarried Adolescents and Psychologists. Faculty of Psychology and Educational Sciences of
272 Mashhad; 2011.
- 273 5. Asli Pour K, Kafi M, Khosrojauid M, Fakhri M. On the children's and children's test. *Psychology*
274 *School Grade.* 2014;2(1):22.
- 275 6. Kools SG, kennedy C. Foster child Health and development: Implication for Primary Care. *Pediatric*
276 *Nursing.* 2003;29(1):39-42.
- 277 7. Fayyaz A, Kiani J. Psychological Health of Adolescents in Shahid Dastgheib and Namazi Shiraz
278 Orphanages. *Exceptional Personality Psychology.* 2011;2(1):19-49.
- 279 8. Okrodudu G. Influence of parenting styles on adolescent delinquency in Delta Central Senatorial
280 District. *EDO J Counseling.* 2010;3:58-86.
- 281 9. Aatemady SH, Mostaghni A. Creation of a living space in the orphanage with a sense of place.
282 Case study: Aminah Orphanage Welfare Services Complex. 2014;14(2):116-97.
- 283 10. Yendork S, Somhlaba N. Stress, coping and quality of life: An exploratory study of the
284 psychological well-being of Ghanaian orphans placed in orphanages. *Children and Youth Services*
285 *Review.* 2014;46(10):28-37.
- 286 11. Fawzy N, Fouad A. Psychosocial and Developmental Status of Orphanage Children:
287 Epidemiological Study. *Current Psychiatry.* 2010;17(2):41-48.
- 288 12. Samadi M, Rezaei M. The Study of the Educational Role of the Family in the Official and Public
289 Education System in the Viewpoint of Science and Religion. *Journal of Research on Islamic*
290 *Education Issues.* 2011;19(12):117-95.
- 291 13. Ashrafizadeh H, Adineh M, Baraz SH, Darvishi M. Depression and Anxiety among Parents of
292 Children with Blood disease in Ahvaz, South West of Iran. *Int J Pediatr.* 2016;4(7):2193-2202.
- 293 14. Seddiqi Rafee F, Tamarani FarM, Abedin Abadi A. Relationship between the religious orientation of
294 coping styles and happiness in students. *Journal of Psychology and Religion.* 2012;3(5):163-135.
- 295 15. Najafi M, Dahshiri G, Debirii S, Sheikhi M, Jafari N. Psychometric Properties of the Persian Version
296 of the Oxford Happiness Inventory in Students. *Quarterly Journal of Educational Measurement.*
297 2012;10(3):55-73.

- 298 16. Islami R, Hashemian P, Garahy A, Modares Gharavi M. Effectiveness of group therapy reality
299 approach on happiness and quality of life of adolescent carers in Mashhad. School of Medicine,
300 Mashhad University of Medical Sciences. 2011;20(5):300-306.
- 301 17. Nik Azin, Nainian M, Shairi M. Validity and Reliability of the Quality of Life Quality Questionnaire on
302 Kidascrine in a Case Study of 27 Students in Iran. Journal of Psychiatry and Clinical Psychology.
303 2012;3(3):210-224.
- 304 18. Pour Sardar F, Sangari A, Abbaspoor D, Albuquerque Paper. The effect of happiness on mental
305 health and life satisfaction, a psychological model of well-being. Journals of Kermanshah University
306 of Medical Sciences. 2011;16(2)139-147.
- 307 19. Kajbaf M, Aghaie A, Mahmoudi A. The Study of the Effect of Happiness Education on the Quality of
308 Life of Couples Referring to Isfahan Counseling Centers. Journal of Family Studies. 2011;7(25).
- 309 20. Safari SH. Happiness and Its Relationship with University Students' Demographic Factors,
310 Quarterly. Journal of Industrial. 2009;2(1):79-86.
- 311 21. Siamian H, Naeimi OB, Shahrabi A, Hassanzadeh R, Âbazari MR, Khademloo M. The Status of
312 Happiness and its Association with Demographic Variables among the Paramedical Students. J
313 Mazandaran Univ Med Sci. 2012;21(86):159-166.
- 314 22. Shakirnia A, Ramezani. The Relationship between Physical Activity, Practicing Religious Beliefs
315 and Happiness in Older Women. Nursing Quarterly Journal of the Elderly. 2011;2(25):25-36.
- 316 23. Rodriguez-Ayllon M, Cadenas-Sanchez C, Esteban-Corneiol, Miqueles JH, Mora-Gonzalez J,
317 Henriksson P et al and . Physical fitness and psychological health in overweight/obese children:A
318 cross-sectional study from the Active Brains project. JSci . MedSport2018;21(2):179-184.
- 319 24. Meyzari Ali R, Dasht Bozorgi Z. The Relationship of Altruistic Behavior, Empathetic Sense, and
320 Social Responsibility with Happiness among University Students.Clinical Psychology. 2016;4(1):51-
321 56.
- 322 25. Montazeri A, Omidvari S, Azin A, Aeenparast A, Jahangiri K, et al. Happiness Among Iranian
323 Health Perception Survey (IHPS).Payesh. 2012;11:467-75.
- 324 26. Nasratinejad F, Sakhaei A, Sharifi H. Study of the Relationship between Youth Social Capital and
325 Their Happiness. Quarterly Journal of Social-Cultural Development Studies .2011;4(2):143-167.
- 326 27. Saffari M, Sanaeinasab H, Rshidi Jahan H, Purtaghi GhH, Pakpour A H, Happiness, Self-efficacy
327 and Academic Achievement among Students of Baqiyatallah University of Medical Sciences.
328 Journal of Medical Education Development. 2013;7(13):22-29.
- 329 28. Kimarati A. Study on the Relationship between Social Capital and Happiness with Academic
330 Achievement in Students. School of Psychology. 2013;2(1):119-130.
- 331 29. Neaz Azeri K .The Effect of Sweetness and Sweetness on the Academic Achievement of Students
332 in Sari. Quarterly Journal of Educational Planning Studies. 2013;2(3):35-57.
- 333 30. Shakiba M, Ziai M. Comparative Study of Mental Health of Female Students Living in Dormitories of
334 Welfare Organization and University of Sistan & Balouchestan. ZJRMS. 2012;14(2):56-6.
- 335 31. Ismaili. The Relationship Between Leisure Time with Happiness and Self-Sufficiency of Shahid
336 Modarres Qutb Teachers in Khorasan Razavi Province, Ministry of Science, Research and
337 Technology, Payame Noor University, Tehran University, Faculty of Medical Sciences; 2015.
- 338 32. Kardeh kar S. the relationship between leisure time with happiness of high school teachers in
339 Shahroud city. Ministry of Science. Research and Technology - Mazandaran University; 2011.
- 340
- 341 33. Nirbhay N. Singh, Cynthia R. Ellis, *Children & Adolescents: Clinical Formulation & Treatment*
342 *Comprehensive Clinical Psychology*, 1998, 5, 267–293.
- 343
- 344 34. Dingemans, J., Danhof, M., & Breimer, D. D. (1988). Pharmacokinetic-pharmacodynamic modeling
345 of CNS drug effects: an overview. *Pharmacology & therapeutics*, 38(1), 1-52.
- 346
- 347 35. Paxton, J. W., & Dragunow, M. (1993). Pharmacology. In J. S. Werry & M. G. Aman
348 (Eds.), *Practitioner's guide to psychoactive drugs for children and adolescents* New York, NY,
349 US: Plenum Medical Book Co/Plenum Publishing Corp, 23-55.
- 350