The Relationship between Empathy and Altruism in Mothers of Children with Autism Spectrum Disorder and Intellectual and Developmental Disabilities

Relación entre empatía y altruismo en madres de niños con trastorno del espectro autista y discapacidad intelectual

Abstract

The objective of the current research study was to investigate the relationship between empathy and self-compassion and altruism in mothers of children with Autism Spectrum Disorder and intellectual and developmental disabilities. Method: by convenience sampling, 161 participants were selected. The short form self-compassion, empathy and altruism inventories were implemented. Results: The Pearson’s correlation coefficient and multiple regression analysis revealed that there was a direct relationship between empath, self-compassion and altruism. Conclusion: Empathy is a complex capability which enables individuals to understand the emotional states of others, and results in compassionate behaviour. Empathy requires cognitive, emotional, behavioural, and moral capacities to understand and respond to others’ suffering. Compassion is a proper response to the perception of others’ suffering. In addition, compassion cannot exist without empathy; they are part of the same perception and response continuum which moves human beings from observation to action. It seems that maternal care, together with the hope that a child with intellectual and developmental disabilities lives independently, provides the necessary grounds for empathy, self-compassion and altruism.

Keywords: Mothers, Autism, intellectual and developmental disabilities, Empathy, Self-compassion, Altruism.

Resumen

El objetivo del presente estudio de investigación fue investigar la relación entre empatía, autocompasión y altruismo en madres de niños con Trastorno del Espectro Autista y discapacidad intelectual. Método: se seleccionaron 161 participantes por muestreo de conveniencia. Se implementaron los inventarios...
de autocompasión, empatía y altruismo de formato abreviado. Resultados: El coeficiente de correlación de Pearson y el análisis de regresión múltiple revelaron que existe una relación directa entre empatía, autocompasión y altruismo. Conclusión: la empatía es una capacidad compleja que permite a las personas comprender los estados emocionales de los demás y da como resultado un comportamiento compasivo. La empatía requiere capacidades cognitivas, emocionales, conductuales y morales para comprender y responder al sufrimiento de los demás. La compasión es una respuesta adecuada a la percepción del sufrimiento de los demás. Además, la compasión no puede existir sin empatía; son parte del mismo continuo de respuesta y percepción el cual permite a los seres humanos pasar de la observación a la acción. Parece que el cuidado materno, junto con la esperanza de que un niño con discapacidad intelectual viva de forma independiente, proporciona las bases necesarias para la empatía, la autocompasión y el altruismo.

Palabras clave: Madres, Autismo, Discapacidad intelectual y del desarrollo, Empatía, Autocompasión, Altruismo.

INTRODUCTION

Intellectual and developmental disabilities are neurodevelopmental conditions before the age of 18. They are defined by the significant limitations in mental functions and adaptive behaviours which are represented in conceptual, practical and social domains [1]. In recent years, some of the specialized texts describe them as cognitive-adaptive disabilities [2].

Early intervention and the provision of effective local services prevent the increasing burden on families and services, and affect the families’ ability to access day-to-day services [3] because families with children with intellectual disabilities experience high levels of stress, as well as physical or emotional health problems [4,5].

With the advent of various social and psychological constructs in the field of special education, the analysis of these constructs in relation to intellectual and developmental groups is taken into account. Altruism, empathy and self-compassion are among the variables that can be examined in terms of effectiveness in family context and the parents’ performance.

Considering the characteristics of altruism, research evidences describe altruism as a strong force and the greatest feature in the world of living beings. According to the studies, this force deprives people of selfishness, and encourages them to engage in group activities, such as participation. In this vein, in some cases, individuals show their sense of altruism in a way that they show their willingness to help each other, even at their own risk [6]. Indeed, altruism is associated with others’ interest rather self-interest [7]. Concerning altruism, it is desired to increase the welfare of others in return for losing one’s own well-being. This condition is one of altruistic motives [8].

Altruism is described as caring for others without expecting a reciprocal action on the part of them. Individuals would experience happiness as a result that indicated in a study [9]. Indeed, altruism is a behaviour, which is prompted by the concern for others or internalized values, goals and self-re-
Empathy is one of the variables related to altruism [11]. Empathy is a multidimensional construct, which means understanding the inner state of others and sharing with them [12, 13]. Despite the various definitions of this construct, the following three main components for identifying this variable are universally agreed upon: emotional response to others, which are given in emotional states in most cases, cognitive capacity to understand the views of others, and emotional control [14]. The research studies, which examined gender difference in the empathy score, showed that the female’s score is significantly higher than that of men [15]. Another variable, which can be associated with altruism, is self-compassion. Self-compassion involves self-kindness and self-understanding rather than violent self-criticism. By preventing his own distressful thoughts and emotions through conscious awareness, the individual perceives his own unique suffering as part of a great human experience [16]. Self-compassion does not require self-evaluation or comparison with others; in fact, despite the failure and inadequate understanding of oneself, it is a kind of clear communication path [17]. Self-compassion is accompanied by mental health. The evidence indicates a negative relation between self-compassion and emotional distress [18].

The concept of self-compassion consists of three essential components which overlap and interact with one another: self-kindness against self-judgment, having common humanity against isolation (i.e., having common humanity means that others are wrong, fail and feel inadequate as well), and mindfulness against over-identification (i.e., your feelings and experiences are balanced without being exaggerated) [17]. Self-compassion means accepting the fact that we are incomplete. Thus, when external living conditions are difficult, those with self-compassion relieve themselves and seek calmness rather than endure or control those conditions [17].

Psychological research evidence suggests that self-compassion has a significant negative relationship with depression and anxiety, and a significant positive relationship with flexibility [16, 19]. In addition, self-compassion has a positive and significant relationship with the quality of communication with others; selfishness is a negative and poor prediction of the quality of communication [20].

A review of the literature on the field of developmental disabilities indicates that altruism was examined among ordinary groups [21] and normal students in the context of Iran [22]. However, no study has investigated intellectual and developmental disabilities considering positive-empirical psychological constructs of empathy and self-compassion. Empathy and self-compassion are among the most important constructs for coping with challenging life events. Through evidence-based studies in the context of Iran, it is possible to explain altruism through empathy and self-compassion in the field of developmental disability. In this vein, the present research study is conducted considering the gap in the literature concerning the relationship between empathy and self-compassion in predicting altruism in the context of Iran, and considering the significance of the evaluation of psychological and positive coping strategies to cope with the life challenges of mothers of children with intellectual and developmental disabilities. The findings of the present study would facilitate developing or modifying theoretical and empirical views on the variables of empathy, self-compassion and altruism.

**METHOD**

This research study is correlational. The population of the study included the mothers of children with intellectual and developmental disorders in Tabriz whose children had enrolled in the exceptional schools of Tabriz in 2017-2018, and were examined by the psychiatry service. The participants were at the age range of 20 to 60; 32.9% of them were rural residents and 67.1% were residents of the city. Their educational level ranged from illiteracy (3.7%) to master (1.9%).

**DATA COLLECTION PROCEDURES**

After receiving permission from the committee of the Education Department in Tabriz, Iran, the consent forms were sent to the parents. The objective of the study was explained to all participants of the study, and their anonymity was guaranteed. In addition, each of the participants was explained that the participation in the study would not have psychological and emotional consequences. Then, self-compassion questionnaire (short form), altruistic behaviour questionnaire, and empathy questionnaire were distributed to the mothers. After the necessary follow-up sessions and ignoring incomplete questionnaires, 161 questionnaires were analysed.
DATA ANALYSIS

Pearson correlation coefficient and multiple regression analysis were conducted through SPSS 18.0 software. In addition, correlation was used to investigate the relationships between the variables.

INSTRUMENTS

1. Empathy questionnaire: This questionnaire was introduced by Davis (1983). This questionnaire consists of 21 items and evaluates the level of empathy of the participants. The components of this questionnaire include empathic concern, visionary, and personal disturbance. The questionnaire is based on the 5-point Likert scale ranging from completely agree to completely disagree. The reliability of the questionnaire was examined in Davis’ study through Cronbach’s alpha; it was more than 70%. The validity of the questionnaire was also estimated through factor analysis; it was optimal [23]. To the best of the researchers’ knowledge, no study reported reliability and validity in the context of Iran.

2. Self-compassion questionnaire (short form): It was prepared by Raes, Pommier, Neff and Van Gucht in 2011. This scale consists of 26 items for measuring three components of self-kindness (5 items) against self-judgment (5 items), having common humanity (4 items) against isolation (4 items), and mindfulness (4 items) against over-identification (4 items). The items are ranked in a 5-point Likert scale, from almost never (1) to almost always (5). The highest score shows the highest level of self-compassion. Furthermore, items 1, 4, 8, 9, 11 and 12 are scored in an inverse order [24]. In a study in the context of Iran, the alpha coefficient for the total scale was reported as 0.91. Moreover, Cronbach’s alpha coefficients for the subscales of kindness, self-judgment, common humanity, isolation, mindfulness and over-identification were 0.83, 0.87, 0.91, 0.88, 0.92, and .77, respectively. In addition, the concurrent and convergent validity of the questionnaire were reported as optimal [25].

3. The altruistic behavioural questionnaire: It was prepared in a research [26]. The questionnaire has 13 items. The objective of it is to evaluate the type of altruistic behaviour of individuals from different dimensions (i.e., ordinary altruism and emergency altruism). The questionnaire is a 4-point Likert scale. In this study [26], the content validity of the questionnaire was verified by university professors. The validity of the questionnaire was confirmed through factor analysis. In addition, the reliability of this questionnaire was estimated using Cronbach’s alpha (0.71), which indicates an optimal reliability.

RESULTS

To investigate the relationship between empathy and self-compassion and altruism in mothers of children with intellectual and developmental disabilities, Pearson correlation coefficient and multiple regression analysis were conducted. The results are presented in the following tables.

| | | D | 1 | 2 | 3 |
|---|---|---|---|---|---|
| Empathy | 72.88 | 7.911 | 1 | | |
| Self-compassion | 39.40 | 7.343 | -0.064 | 1 | |
| Altruism | 50.45 | 6.651 | **0.21 | 0.164 | 1 |

*Significance at a level of 0.05  ** Significance at a level of 0.01
Table 1 presents the results of Pearson correlations which examine the relationship between empathy and self-compassion and altruism, along with the means and standard deviations. Accordingly, the correlation coefficient between empathy and altruism is 0.241 \( (P<0.01) \). In addition, the correlation between self-compassion and altruism is 0.164 \( (P<0.05) \). It should be noted that positive coefficients indicate that there is a direct relationship between empathy and self-compassion and altruism.

Table 2 shows the results of regression analysis to predict altruism through empathy and self-compassion. According to the results, the correlation between independent variables and dependent variable is 0.301. Furthermore, the coefficient of determination \( (R^{2}) \) is 0.091, which shows that empathy and self-compassion explained 9.1\% of the variance of altruism. According to the obtained coefficients, it is concluded that empathy \( (p<0.01, \beta=0.254) \) and self-compassion \( (p<0.05, \beta=0.181) \) positively and significantly predict altruism among mothers of children with intellectual and developmental disabilities.

### DISCUSSION

The objective of the present study was to predict altruism through empathy and self-compassion among mothers of children with intellectual and developmental disabilities. Pearson correlation coefficient and multiple regression analysis showed that there was a direct correlation between empathy and self-compassion and altruism. Moreover, empathy and self-compassion were able to predict altruism in mothers of children with intellectual and developmental disabilities.

A review of the literature on intellectual and developmental disabilities suggests that with the advent of positive psychosocial and social constructs, significant changes of the attitudes of this group of parents towards the phenomenon of disability have been reported. Some instances include personal growth, resilience, proper management of inadequate conditions, and search for personal meaning of life with the birth of a child with developmental disabilities [27].

By accepting the conditions of the mothers of children with intellectual and developmental disabilities, family functions are positively affected [28]. Empathy seems to play an important role in this regard. Empathy facilitates sharing of experiences, needs and desires of individuals; it creates an emotional bridge which promotes community-friendly behaviours. This capacity requires the interaction of neural networks. It enables us to understand the feelings of others and distinguish our feelings from those of others [29]. Altruism conditions for mothers of children with intellectual and developmental disabilities are facilitated through care processes. Although long-term taking care of this group of children leads to mental burnout, research evidence suggests that having a psychological health depends on tolerating others; taking care of individuals has the capacity to reduce the stresses, including patient care [30]. In this vein, there is an inverse relationship between self-compassion and social anxiety [31]. Communication significantly affects altruistic behaviour, and broadens empathy [32].
Empathy is not just an attitude, but it is a process which includes emotional, cognitive, and behavioural activities; empathy impairment can play an important role in behavioural problems [33, 34, & 35]. Other social factors, personality and psychological characteristics may predict altruism in mothers of children with intellectual and developmental disabilities. In fact, a phenomenological study of a qualitative type is required in this case. These conditions are among the limitations of the present study. For further understanding, it is necessary to examine other factors related to altruism, including perseverance and religious attitudes and beliefs.

CONCLUSION
Empathy is a factor which attracts individuals to help others; it plays an important role in understanding the details of others’ experiences. In addition, this ability enables individuals to perceive emotional states of others to show kind behaviours. Empathy requires cognitive, emotional, behavioural and ethical abilities to understand others’ suffering [29].

Compassion is an appropriate response to the perception of the suffering of others. It cannot exist without empathy because they are part of integrated perception and response which transfer human from observation to action [29]. It seems that maternal care, together with the hope that a child with intellectual and developmental disabilities lives independently, provides the necessary grounds for empathy, self-compassion and altruism. It also facilitates obtaining empirical evidence and theoretical foundations for further research to predict other community-friendly behaviours. In addition, it defines new horizons to elaborate on and modify these constructs. This study opens up new ways for interdisciplinary study of psychological altruism.

ACKNOWLEDGMENTS
The authors thank school managers, counsellors and mothers of children with intellectual and developmental disabilities who cooperated in this study.

ETHICAL ISSUES
In order to observe ethical issues, mothers were informed that their responses to the questionnaire would be used anonymously.

CONFLICTS
The results of this research study do not harm any organization or institute.

REFERENCES
1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub. 2013.
2. Calles JL. Cognitive-adaptive disabilities. Pediatr. Clin, 2011. 58(1), 189-203. doi: 10.1016/j.pcl.2010.10.003
3. Kiernan J, Mitchell D, Stansfield J, Taylor C. Mothers’ perspectives on the lived experience of children with intellectual disability and challenging behaviour. J Intellect Dev Disabil. 2019. 23(2), 175–189. https://doi.org/10.1177/1744629517737149.
4. Hassall R, Rose J, McDonald J. Parenting stress in mothers of children with an intellectual disability: the effects of parental cognitions in relation to child characteristics and family support. J Intellect Disabil Res. 2005. 49(6): 405–418. https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780195187243.001.0001/oxfordhb-9780195187243-e-039.
5. Woodman AC, Mawdsley HP Hauser-Cram P. Parenting stress and child behavior problems within families of children with developmental disabilities: transactional relations across 15 years. Res Dev Disabil. 2014. 0: 264–276. doi: 10.1016/j.ridd.2014.10.011
6. Fehr E, Fischbacher U. The nature of human altruism. Nature. 2003. 425 (6960), 785. https://www.nature.com/articles/nature02043.
7. Batson CD. A Scientific Search for Altruism: Do We Only Care About Ourselves?. Oxford University Press. 2018. https://books.google.es/books?hl=en&lr=&id=AftyDwAAQBAJ&oi =fnd&pg=PT6&dq=Altruism+definitions&ots=fPj8uTYLtv&sig=gC3htEtcwctGkzQMCRI1 fSN-mNM#v=onepage&q=Altruism%20definitions&f=false
8. Elster J. Altruistic behaviour and altruistic motivations. Handbook of the economics of giving, altruism and reciprocity. 2006. 1, 183-206. doi.10.1016/S1574-0714(06)01003-7
9. Swank JM, Ohrt JH, Robinson EM. A Qualitative exploration of counselling students’ perception of altruism. J Humanist. Couns. 2013. 52 (1):23-38. https://doi.org/10.1002/j.2161-1939.2013.00030.x
10. Swank J. M, Robinson ME, Ohrt JH. Manifestation of altruism: Perceptions among counselling students in the United Kingdom. Couns Psychother Res. 2012. 12(1), 63-70. https://doi.org/10.1080/14733145.2011.562981

11. Lopez S, Snyder C, Batson C, Ahmad N, Lishner D. Empathy and Altruism. In The Oxford Handbook of Positive Psychology; Oxford University Press. 2009.

12. Decety J, Jackson PL. A social-neuroscience perspective on empathy. Curr Dir Psychol Sci. 2006.15(2), 54-58. doi: 10.1111/j.0963-7214.2006.00406.x

13. Tully EC, Ames AM, Garcia SE, Donohue MR. Quadratic associations between empathy and depression as moderated by emotion dysregulation. J. Psychol. 2016. 2; 150(1):15-35. doi:10.1080/00223980.2014.992382.

14. Decety J, Jackson PL. The Functional Architecture of Human Empathy. Neurosci Biobehav Rev. 2004. 3(2), 71–100. doi:10.11177/1534582304267187

15. Rueckert L, Naybar N. Gender differences in empathy: The role of the right hemisphere. Brain Cogn. 2008. 67(2), 162-167. doi.10.1016/j.bandc.2008.01.002

16. Neff KD. The development and validation of a scale to measure self-compassion. Self-Identity. 2003. 2(3), 223-250. doi. 10.1080/152988603090207

17. Neff KD. Self-compassion, self-esteem, and well-being. Soc. Personal. Psychol. Compass. 2011. 5(1):1-2. doi:10.1111/j.1751-9004.2010.00330.x

18. Cleare S, Gumley A, O’Connor RC. Self-compassion, Self-forgiveness, Suicidal ideation and Self-harm: a Systematic review. Clin Psychol Psychother. 2019. https://doi.org/10.1002/cpp.2372.

19. Baker DA, Caswell HL, & Eccles FJ. Self-compassion and depression, anxiety, and resilience in adults with epilepsy. Epilepsy Behav. 2019. 90, 154-161. doi:10.1016/j.yebeh.2018.11.025.

20. Jacobson EHK, Wilson KG, Kurz AS, & Kellum KK. Examining self-compassion in romantic relationships. J Contextual Behav Sci. 2018. 8, 69-73. https://doi.org/10.1016/j.jcbs.2018.04.003.

21. Long MC, Krause E. Altruism by age and social proximity. PloS one.2017. 12(8), e0180411. doi:10.1371/journal.pone.0180411.

22. Chalshtari MN, Heidari A. A comparative study between altruism and social self-efficacy in normal and gifted high school students in Ahwaz, Iran. Int. J. humanit. cult. stud. 2016. 3(2), 423-428. http://www.ijhcs.com/index.php/ijhcs/article/view/2756.

23. Davis MH. Measuring individual differences in empathy: Evidence for a multidimensional approach.J Pers Soc Psychol. 1983. 44(1), 113. doi: 10.1037/0022-3514.44.1.113

24. Raes F, Pommier E, Neff KD, Van Gucht D. Construction and factorial validation of a short form of the self-compassion scale. Clin Psychol Psychother.2011. 18(3), 250-255. doi: 10.1002/cpp.702

25. Shahbazi M, Rajabi GH, Maghami E, Jolodari A. Confirmatory factor analysis of the Persian version of the self-compassion rating scale-revised. 2015. https://www.sid.ir/en/journal/ViewPaper.aspx?id=479374

26. Ahmadi S. The study of altruism in social everyday communication and its effective factors. Iran. j. social. 2008. 10 (2): 87-108. (In Persian). https://www.sid.ir/fa/journal/ViewPaper.aspx?id=118427.

27. Scorgie K, Wilgosch L, Sobsey D. The Experience of Transformation in Parents of Children with Disabilities: Theoretical Considerations. Dev. Disabil. Bull. 2004. 32(1), 84-110. https://eric.ed.gov/?id=EJ848193

28. Kandel I, Merrick J. Factors affecting placement of a child with intellectual disability. Sci. World J. 2005. 5, 370-376. doi. 10.1100/tsw.2005.48.

29. Riess H. The science of empathy. J. Patient Exp. 2017. 4(2), 74-77. doi.10.1177/2374373517699267

30. Raab K. Mindfulness. Self-compassion, and empathy among health care professionals: a review of the literature. J. Health Care Chaplain.2014. 20(3), 95-108. doi.10.1080/08854726.2014.913876

31. Gill C, Watson L, Williams C, Chan SW. Social anxiety and self-compassion in adolescents. J. Adolesc. 2018. 69, 163-174. doi. 10.1016/j.adolescence.2018.10.004

32. Andreoni J, Rao JM. The power of asking: How communication affects selfishness, empathy, and altruism. J. Public Econ. 2011. 95(7-8), 513-520. doi.10.1016/j.jpubeco.2010.12.008

33. LeSure-Lester GE. Relation between empathy and aggression and behaviour compliance among abused group home youth. Child Psychiatry Hum Dev, 2000. 31(2), 153-161. doi. 10.1023/A:1001900727156

34. Jolliffe D, Farrington DP. Examining the relationship between low empathy and bullying. Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 2006. 32(6), 540-550. doi.10.1002/ab.20154

35. Miller PA, Eisenberg N. The relation of empathy to aggressive and externalizing/antisocial behaviour. Psychol. Bull. 1988, 103(3), 324. doi. 10.1037/0033-2909.103.3.324
