

Emotion Self-Regulation Strategies among Caregivers Had Autistic Child

Nada Mohamed AL-Attar and Elham Fayad

Department of Community and Mental Health Nursing, King Saud University, Riyadh, KSA

Abstract: This work aimed to assess the emotion self-regulation strategies of caregivers having a child with autism and evaluate caregivers' emotion regulation. Two tools were used for data collection: 1. Caregivers (Mother/ other caregivers) demographic data. 2. Maternal (Care givers) co-regulation strategies. Interview method were used by researcher to collect demographic data from the participants. In addition to Intermittent observation method were selected to gather data from both caregivers and children. Results indicated that characteristics of caregivers shows that above two third were mothers, two thirds of caregivers had completed their university education. Caregivers' co-regulation in the present study obtained the highest percentage of the response item was majority in the evidence of prompting. In conclusion, the present results revealed that emotion self-regulation (i.e. participation of autistic child and their caregivers was lacking). It was recommended that the researcher suggest special program that emphasize on visual processing to encourage caregivers of autistic children to utilize mutual eye contact to prevent further interfering to caregivers' emotion-self regulation, design program to promote cognition for the autism, psycho education, intervention towards successful emotion regulation interaction.

Key words: Emotional Regulation • Emotion • Self-Regulation • Autism • Health Care Providers • Prompting • Parents • Mothers

INTRODUCTION

At first glance one might not notice anything odd on meeting a young boy with autism. But if a person try to talk to him, it will quickly become obvious that something is seriously wrong. Autistic child may not make eye contact with other person; instead he may avoid gaze and fidget, rock his body to and fro, or bang his head against the wall. More disconcerting, he may not be able to conduct anything remotely resembling a normal conversation. Even though he can experience emotions such as fear, rage and pleasure, he may lack genuine empathy for other people and be oblivious to subtle social cues that most children would pick up effortlessly [1].

Parents facilitate the emotional development and regulation of their children by supporting and modeling their children's emerging and understanding emotional, expression and modification of these emotions [2].

The term emotional regulation is not definite as it is used to refer to more than one situation. According to Gross and Thompson [3], the term may be used to refer to the way emotions are regulated or how they regulate other things such as behavior, thoughts or even physiology.

Research on this issue is grounded on the psychological defenses study [4], mental stress and coping [5], the theory of attachment [6] and the theory of emotions [7]. This topic acquired primary attention as a distinctive concept in the literature about personal development [3]. Thereafter, the topic gained popularity in the study about adults [8, 9]. The processes of emotion regulation may depend on form of controller consciousness and their effects may be exhibited at a single or multiple points of the production of the emotion. The regulation of emotion may alter the level at which the emotion reaction mechanisms relate to each other the emotion continue to manifest itself [3]. Emotional regulation is one of the major problems when interacting with children suffering from autistic condition [10].

Emotional regulation portrays the relationship among emotions, behaviors and cognition [11]. Knowledge of what needs to be regulated is a necessary step in understanding emotion regulation. Understanding emotion is not a simple task as one must first list down all the required and enough conditions related to something for it to pass the test of being referred to as emotion [3].

Corresponding Author: Nada Mohamed AL-Attar, Department of Community and mental health Nursing, Demonstrator of Mental Health Nursing, King Saud University, Riyadh, KSA.

Parents can assist their children in the formation of emotion of regulation capacity by reducing the contact of the children to too much stress, unstable conditions and extreme stimulations. Deprived emotional regulation can lead to impairment of the child's thinking hence negating their ability to make judgments [12]. Emotions not only regulate other behaviors, but can themselves be affected by other factors as well. Emotion regulation is neither "Good" nor "Bad," as often dichotomized, but is a contributing agent to individuals' ability to organize their attention, responses and actions in any number of interpersonal interactions and relationships [13].

Many studies suggest that raising a child with an Autism Spectrum Disorder (ASD) can be a stressful experience for mothers; other researchers report that some mothers experience positive psychological benefits. For example, mothers have reported that their children have brought their family closer together [14, 15] and helped them become more resilient [14, 16].

Researchers suggested that nursing professionals can have a number of important roles to play as holders of hope, bridge builders [17] and as care providers, being able to diagnose and manage autistic child and treatment intervention [18]. Supporting families with education and assistance with coping and adaptation [17]. The best plan of care will be one that is formulated with the family [19].

Aim of the Study: Assess the emotion self-regulation strategies of caregivers having a child with autism and evaluate caregivers' emotion regulation

Research Questions:

- Q1: What are personal characteristics of caregivers' care for child with autism?
- Q2: What are social characteristics of caregivers' care for child with autism?
- Q3: Are the caregivers used efficiently Emotional Co-regulation strategies?
- Q4: What is the relationship between caregivers' emotion Co-regulation and their Characteristics?

Conceptual Definitions: For the purposes of this study, the following conceptual definitions will be utilized:

Emotion Self-Regulation: Refers to a person's ability to understand and accept his or Her emotional experience, to engage in healthy strategies to manage uncomfortable Emotions when necessary and to engage in appropriate behavior (e.g., attend classes, go to work, engage in social

relationships) when distressed. People with good emotion regulation skills are able to control the urges to engage in impulsive behaviors, such as self-harm, reckless behavior, or physical aggression, during emotional distress [20].

Strategies: A way of action, becomes necessary in a situation when, for the direct achievement of the main goal or series of maneuvers or stratagems for obtaining a specific or result [21].

Caregivers: Refer to unpaid relatives or friends of a disabled individual who help that individual with his or her activities of daily living, such as, "family" "spousal", "child", "parent", to distinguish between different care situations and also to distinguish them definitively from the paid version of a caregiver, such as, a Personal Care Assistant [22].

Prompting: To move, to act, to give rise to, to assist (An actor or reciter) by providing the next words of a forgotten passage; cue to motivate or stimulates to do [23]. In this study the: Prompting/helping: means the caregivers (mother or others) physically or vocally prompts and scaffolds child (i.e. *physical prompting with toy if child becomes frustrated* [2]).

Operational Definitions: For the purposes of this study, the following conceptual definitions will be utilized:

Emotion Self-Regulation: Participation of autistic child and their caregivers (Mothers or others) in emotion regulation that reflects the interrelation of emotions regulation and behavior responsiveness to each child signals.

Strategies: Defined according to tools of data collection used in the present study to define each of them separately then correlates their scores to each other's.

Caregivers: The study participants either, mothers, sister nanny, sitter or other who having autistic child.

Tools for Data Collection: Two tools were used for data collection

Caregivers (Mother/ Other Caregivers) Demographic Data: Including Caregivers' age, sex, level of education, housing facilities, status of income, transportation methods and distance from the home to the center.

Maternal (Care Givers) Co-regulation Strategies:

A series of maternal (Caregivers) strategies was adapted from a study of typical children and their mothers) [24] and also this tool was applied by Gulrud *et al.* [2]. The following eight strategies included were: Prompting/helping, following the child’s lead, redirection of attention, active ignoring, reassurance, emotional following, physical comfort and vocal comfort. The presence or absence of each strategy was coded (0-1) of each mother/father (Caregivers) strategy.

MATERIALS AND METHODS

Surveying for Proposed Center: As the researcher began to surveying the autism centers in Riyadh city, the researcher went to the Autism Research and Treatment Center “ART center” and know the rules and the methods of their performance of care with autistic children and their parents.

Pilot Study of the Center: After surveying the centers, the researcher decides to select both centers; Autism Research and Treatment Center “ART center” and Azzam center.

All of study tool were taken through approved email letter from the main author

The Actual Study: Participant consent was taken and proved by caregivers signature

- **Interview method** were used by researcher to collect demographic data from the participants.
- **Intermittent observation method** were selected to gather data from both caregivers and children

Process of Data Collection (Procedure):

- The Autism Research and Treatment Center" in King Khalid University Hospital visits and explanation of the aim and method of the present study were done.
- Discuss with "Autism Research and Treatment Center" and Azzam center the inclusion and exclusion criteria of the participant.
- Telephone contact with the selected participants was done to inform them that the researcher will do the Session of observation for them (Caregivers and their Autistic children), the purpose and data collection methods were clarified to them and time for meeting were modified and identified.

Table 1: Demographic characteristics of caregivers in the study subjects (n=60)

Selected characteristics of caregivers	Frequency	Percent
Caregiver age (years):		
20-<30	29	48.3
30-<40	22	36.7
40+	9	15.0
Caregiver relation:		
Mother	39	65.0
*Other	21	35.0
Caregiver education:		
Illiterate	1	1.7
Primary	1	1.7
Secondary	3	5.0
High school	18	30.0
University	36	60.0
Post graduate	1	1.7

* Other "special education specialist or social service specialist"

- At Azzam center the meeting started with caregivers and their autistic child through conducting a session with the main objectives of clarifying the process of observation that will be done by the researcher included tool will used and the Way that the tools will applied.
- The observation started by consent signed from participant for their agreement to Enrollment in the present study. Then, the demographic data were filled by the Researcher through asking the participants.
- Data collection was done through mini sessions of Structured play that preset by the researcher in the psychologist office located in Azzam Center for Autism.

RESULTS

Table 1 describes The demographic characteristics of the caregivers of studied children it show that slightly less than half of them (48.3%) had their age between 20 and less than 30 years. All of them were females and the majority of these were mothers (65%). Two-thirds of the caregivers had university education (60%) and 30% had high school education. Only one caregiver (1.7%) was illiterate.

Table 2 shows that as regards the housing, more than half of the autistic children were living in apartments (56.7%) and only 15% were living in villas. The family income was mostly 5 to less than 10 thousand SR. Three-fourth of the caregivers has private cars (75%), while one-fifth (20%) were using the center' car for transportation.

Table 2: Socio-economic characteristics of caregivers in the study subjects (n=60)

Socio-economic characteristics of caregivers	Frequency	Percent
Housing:		
Apartment	34	56.7
Independent house	17	28.3
Villa	9	15.0
Income (SR):		
1000-<5000	7	11.7
5000-<10000	30	50.0
10000-<15000	13	21.7
15000-<20000	8	13.3
20000+	2	3.3
Transportation:		
Private car	45	75.0
Taxi	3	5.0
Center bus	12	20.0

Table 3: Emotional co-regulation among caregivers of autistic children in the study subjects (n=60)

Caregiver co-regulation scale	Frequency	Percent
Evidence of prompting	54	90.0
Evidence of following	53	88.3
Evidence of redirecting attention	52	86.7
Evidence of active game-like engagement	48	80.0
Evidence of vocal comfort	47	78.3
Evidence of emotional following	44	73.3
Evidence of reassurance	43	71.7
Evidence of physical comfort	36	60.0

*Note: respondent gave more than one response

Table 4: Relation between caregivers' co-regulation and their characteristics

Caregivers selected characteristics	Caregiver co-regulation				X ² test	p-value
	High (67%+)		Low (<67%)			
	No.	%	No.	%		
Caregiver age (years):						
<30	20	69.0	9	31.0	0.548	0.459
30+	24	77.4	7	22.6		
Caregiver sex:						
Male	0	00.0	0	0.0	0.37	0.543
Female	43	72.9	16	27.1		
Caregiver relation:						
Mother	27	69.2	12	30.8	0.959	0.327
*Other	17	81.0	4	19.0		
Caregiver university education:						
No	14	60.9	9	39.1	2.963	0.085
Yes	30	81.1	7	18.9		
Housing:						
Apartment	24	70.6	10	29.4	0.302	0.582
Independent house/villa	20	76.9	6	23.1		
Income (SR):						
<10000	26	70.3	11	29.7	0.463	0.496
10000+	18	78.3	5	21.7		
Transportation by private care:						
Yes	35	77.8	10	22.2	1.818	0.178
No	9	60.0	6	40.0		
Residence:						
Riyadh	43	75.4	14	24.6	2.584	0.108
Outskirts of Riyadh	1	33.3	2	66.7		

P ≤ 0.05

*Other "special education specialist or social service specialist"

Table 5: Best fitting multiple linear regression model for caregivers' co-regulation score

	Unstandardized Coefficients			t-test	p-value	95% Confidence Interval for B	
	B	Std. Error	Standardized Coefficients			Lower	Upper
Constant	128.509	18.560		6.924	.000	91.358	165.660
Residence: (reference: Riyadh)	-47.588	17.307	-.340	-2.750	.008	-82.231	-12.944

R-square=0.12

Model ANOVA: F=7.86, p=0.008

Variables entered and excluded by model (not significant): caregiver age, sex, education, income, obstacles, self-regulation score

Table 3 Shows high percentages of response for all items. The evidence of prompting was the highest (90%), followed by evidence of following and of redirecting attention (88.3% and 86.7%, respectively). At the other extreme, the evidence of physical comfort was the lowest (60%).

As regards the relation between caregivers' co-regulation and their characteristics, Table 4 Points that there is no associations of statistical significance with any of the characteristics. Although higher percentages of the caregivers with university education, higher income, having private cars and residing in Riyadh had high co-regulation, the relations were not statistically significant.

Table 5 Displays the best fitting linear regression model for caregivers' co-regulation score. It shows that the place of residence is the only statistically significant independent predictor. It is evident that the residence inside Riyadh increases the score of co-regulation by more than 47 folds, compared to outskirt Riyadh. None of the other child or caregiver's characteristics or scale had a statistically significant association with it. The model explains 12% of the co-regulation score.

DISCUSSION

This study aimed to assess the emotion self-regulation strategies of caregivers having child with autism and evaluate caregivers and emotion regulation. This study concluded that the characteristics of caregivers shows that above two third were mothers, two thirds of caregivers had completed their university education and only one mother was illiterate. Caregivers either ; mother, social service specialist or special education specialist (Table1). A study on the co-regulation of emotion between mothers and their children with autism conducted in California by Gulsrud *et al.* [2] proved that mothers selected for the study were with similar characteristics of these present one as the majority of caregivers had completed college. Also in two other studies that had been conducted on Understanding

autism in Saudi Arabia and USA; by Lickenbrock *et al.* [14] and Alqahtani [25], concluded that (63%) of parents were finished their higher education as compared to the other study conducted in USA both found that the majority of mothers (69%) either completed college or had some college training, both of these studies, results were in concordance with present study [14, 25].

Researcher could justify the previous exhibited results as, educated mothers can observe and early identify their children's strange symptoms and they can pick them easily seeks help at the moment of disorder incidence than non-educated mothers. This reflects the quality of child caring of the educated mothers.

The researcher in an observational session with an illiterate mother and concerning the first incidence of disorder discovery of her Autistic Spectrum Disorder child. One mother reported that she didn't convinced that she had an autistic child as she didn't know what is the meaning of autism, this mother statement may reflect and confirm the Previous researcher justification.

Caregivers' co-regulation in the present study obtained the highest percentage of the response item was majority in the evidence of prompting (Caregivers initiates, motivates and stimulates their children with Autistic Spectrum Disorder to do) compared the lowest response item was two third in the evidence of physical comfort (behaviors initiates by caregivers to comfort child. i.e., kissing, hugging) (Table3), these results congruent with California's study by Gulsrud *et al.* [2] that conclude that the mother of autistic children engage in co-regulation strategies response during research session in more active ways throughout evidence of prompting and also highest in evidence of physical comfort this latter is contradicted with the present study result concerning the evidence of physical comfort. Hence, the researcher main concern is to propose to promote and integrate an intervention enhancing the physical comfort of the caregivers with their children also enhancing and further work on following, redirection of attention and prompting will be of benefit for caregivers for more enhancement of co-regulation in general.

A study by Alqahtani conducted in Saudi Arabia, 2012, found that the health care providers mostly have formal understanding about causes and treatments of autism. Parents of children with autism. On the other hand, obtain contradictory information from multiple formal and informal sources [25]. This study and results of present and different study implies the researcher to propose on intervention program for parents to initiate and maintain emotional regulation which is the main response needed from autistic child.

Improving the consciousness of a parent on the way their interactions with the child would help to strengthen the looked-for conduct by raising the level of constructive effect [26]. Available writings points that it is possible to help parents learn ways of improving their children's ability to develop social and emotional characteristics through their daily interactions with them [27]. Other research has shown that mothers have the potential to get used to characteristics of their children in the same way parents with typical children adapt to the conditions of their children [2, 28, 29]. Scholars have come to a conclusion that challenges among autistic children arises from the lack of organization and lack of regulation.

CONCLUSION

The present results revealed that emotion self-regulation (i.e. participation of autistic child and their caregivers was lacking

Recommendations

The Following Recommendation Will Be Suggested: Design program to promote cognition for the autism that focusing on coping with this disorder.

Psychoeducation interventions for caregivers that care for orientation towards successful emotion-regulation and the interaction between caregivers and their autistic children

Classify special program that emphasize on visual processing to encourage caregivers of autistic children to utilize mutual eye contact to prevent further interfering to caregivers' emotion-self regulation interaction.

Further Study: The researcher suggested the work and development a promoting emotional co-regulation package to enhance the autistic child-caregivers co-regulation to be recommended for further study after further modification and extra activity.

ACKNOWLEDGEMENT

Special appreciation is given to King Saud University, Nursing College, Community & Mental Health Nursing Department for facilitating of this work. Great appreciation is given to participants. Special rewards for Autism Research and Treatment Center and AZZAM Center for helping & cooperation.

REFERENCES

1. Ramachandran, V.S. and L.M. Oberman, 2006. Broken Mirrors.(Cover story). Scientific American, 295(5): 62-69.
2. Gulsrud, A.C., L.B. Jahromi and C. Kasari, 2010. The co-regulation of emotions between mothers and their children with autism.. J Autism Dev Disorder. Feb; 40(2): 227-37. Epub 2009 Aug 28. PubMed PMID: 19714458; PubMed Central PMCID: PMC2810360.
3. Gross, J.J. and R.A. Thompson, (in press), 2006. Emotion regulation: Conceptual foundations. In J.J. Gross (Ed.), Handbook of emotion regulation. New York: Guilford Press.
4. Freud, S., 1959. Inhibitions, symptoms, anxiety (A. Strachey, Trans. and J. Strachey, Ed.). New York: Norton. (Original work published 1926).
5. Lazarus, R.S., 1966. Psychological stress and the coping process. New York: McGraw Hill.
6. Bowlby, J., 1969. Attachment and loss: Attachment. New York: Basic Books.
7. Frijda, N.H., 1986. The emotions. Cambridge: Cambridge University Press.
8. Izard, C.E., 1990. Facial expressions and the regulation of emotions. Journal of Personality and Social Psychology, 58: 487-498.
9. Gross, J.J. and R.W. Levenson, 1993. Emotional suppression: Physiology, self-report and expressive behavior. Journal of Personality and Social Psychology, 64: 970-986.
10. Eisenberg, N., C. Champion and Y. Ma., 2004. "Emotion-Related Regulation: An Emerging Construct," Merrill-Palmer Quarterly, 50(3): 236-59.
11. Bell, M. and C. Wolfe, 2004. Emotion and Cognition: An Intricately Bound Developmental Process," Child Development, 75(2): 366-70.
12. National Scientific Council on the Developing Child, 2004: Available from: <http://developingchild.harvard.edu/initiatives/council/>

13. Cole, P. M., S. E. Martin and T. A. Dennis, 2004. Emotion regulation as a scientific construct: Methodological challenges and directions for child development Research. *Child Development*, 75: 317-333.
14. Lickenbrock, D.M., N.V. Ekas and T.L. Whitman, 2011. Feeling good, feeling bad: influences of maternal perceptions of the child and marital adjustment on well-being in mothers of children with an autism spectrum disorder. *J Autism Dev Disorder*. Jul; 41(7).
15. Towbin, K.E., J.E. Mauk and M.L. Batshaw, 2002. Pervasive developmental disorders. In M. L. Batshaw (Ed.), *Children with disabilities* (5th ed., pp: 365-387). Baltimore, MD: Brooks.
16. Bristol, M.A., 1987. Mothers of children with autism or communication disorders: Successful adaptation and the double ABCX model. *Journal of Autism and Developmental Disorders*, 17: 469-486.
17. MacClain and Karen, 2004. The experience of parents providing care to their children with autism. M.S. dissertation, University of Alaska Anchorage, United States - Alaska. Retrieved December 7, 2010, from *Dissertations & Theses: Full Text*. (Publication No. AAT 1421626).
18. Blackwell. Gharani, N., R. Benayed, V. Mancuso, L.M. Brzustowicz and J.H. Millonig, 2004. Association of the home box transcription factor, ENGRAILED 2, with autism spectrum disorder. *Mol Psychiatry*, 9: 474-484.
19. Bradley, J., N. Scarpinato, K. Kurbjun, X. Bateman, B. Holtzer and B. Ely, 2010. Caring for the Child With an Autism Spectrum Disorder in the Acute Care Setting. *Journal for Specialists in Pediatric Nursing*, 15(3), 244-54. Retrieved December 7, 2010, from Pro Quest Medical Library.(Document ID: 2079985861).
20. About.com.glossary,2009.Availablefrom: <http://bpd.about.com/od/glossary/g/emotreg.htm>
21. Collins English Dictionary - Complete & Unabridged 10th Edition. strategy. (n.d.). Retrieved February 16, 2013, from Dictionary.com website: <http://dictionary.reference.com/browse/strategy>
22. Free Dictionary By Farlex, 2012. Available from: <http://www.thefreedictionary.com/caregiver>. Retrieved, 2012-06-15
23. American Psychiatric Association, 2013. Diagnostic and statistical manual of mental disorders: DSM-IV. 4 ed. Washington, DC. American Psychiatric Publishing, In, 2000. pp: 69-84.
24. Grolnick, W.S., C. Kurowski, J.M. McMenamy, I. Rivkin and L.J. Bridges, 1998. Mothers' strategies for regulating their toddlers' distress. *Infant Behavior and Development*, 21: 437-450.
25. Alqahtani, M.J., 2012. Understanding autism in Saudi Arabia: A qualitative analysis of the community and cultural context. *Journal Of Pediatric Neurology*, 10(1): 15.
26. Marjorie Solomon, Michele Ono, Susan Timmer and Beth Goodlin-Jones,2008. *J Autism Dev Disorder*
27. Bullard, M., 2006. *Journal of Undergraduate Research*.2006 July/August, (7): 6.
28. Adamson, L., D. McArthur, Y. Markoc, B. Dubar and R. Bakeman, 2001. Autism and joint attention: Young children's responses to maternal bids. *Applied Developmental Psychology*, 22: 439-453.
29. Kasari, C., M. Sigman, P. Mundy and N. Yirmiya, 1988. Caregiver interactions with autistic children. *Journal of Abnormal Child Psychology*, 16: 45-56.