

SYSTEMATIC REVIEW

Emotion Regulation and Academic Achievement among Children of Divorce: A Systematic Review

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ABSTRACT

Introduction: Divorce has effects on psychological health among individuals with parental divorce as well as their performance. This study aimed to conduct a systematic review on emotion regulation and academic achievement among individuals with parental divorce. **Methods:** This study was a systematic review using three databases, CINAHL, PUBMED, and SCOPUS. The keywords used were emotion regulation OR emotional state OR enjoyment OR boredom OR frustration OR anger AND performance OR academic achievement AND adolescents OR teenagers OR young adults OR teen or youth AND parental divorce. The inclusion criteria for the articles were English language and published from 2011-2021, for individuals with parental divorce. Exclusion criteria were articles not in the English language, not full paper article, not in human and not psychometric study, also master thesis. **Results:** This study recorded 715 articles, screened according to the topic, and obtained a final result of nine articles. These articles focused on relationship between emotion regulation and academic performance among individuals with parental divorce. **Conclusion:** The results of the review showed that there was relationship between individuals with parental divorce on academic performance as well as emotion regulation. Implications of findings are discussed.

Keywords: Divorce, Academic Achievement, Emotion Regulation, Review

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INTRODUCTION

Experience of parental divorce during childhood is common (1). Approximately four out of ten children experience parental divorce before adulthood in the USA (2). Parental divorce is a stressor that can cause harm to children. The effects of parental divorce during childhood depend on the age at exposure, gender, conflicts during divorce, parent remarriage, moving, parental support, and economic circumstances (3). These conditions are associated with decreased wellbeing (4), cognitive decline, and decreased educational performance (5).

Individuals with parental divorce are more likely to have conflict (6), physical and mental health disorders as well as emotional regulation disorders. Divorce also weakens the relationship between parents and children (7). Conflicts during parental divorce correlated with anxiety and depression (8), decreased wellbeing, aggressiveness, and low self-esteem. Individuals with parental divorce are also more likely to feel unhappy and dissatisfied (9). These conditions are related to emotional regulation activities (10).

Parental divorce affects the decrease in motivation and enthusiasm for learning in class. Individuals with parental divorce have less ability in reading, mathematics, and are often remedial in their examination (11). Single parent causes low control among children, so they often

do not attend their class and are more likely to drop out of school (11, 12).

There have been many studies related to the effects of parental divorce on academic achievement and emotional regulation among children. In addition, there is one study related to a systematic review of the relationship between emotional regulation academic and achievement among normal children (10).

Based on this background, the aim of this study was to conduct a systematic review on the relationship between individuals with parental divorce and emotional regulation as well as academic achievements. This study was required to report many articles related to emotional regulation and academic achievements among individuals with parental divorce.

DESIGN

This study was registered at Prospero number CRD42021276789.

Source and Search of Data

This study used a systematic review method and used previous study for guiding the systematic review (10). We followed PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analyzes) guidelines for reporting the systematic review (13). This study used three databases for searching emotion regulation, academic achievement among children of divorce in original studies from CINAHL, PubMed, and SCOPUS. We conducted this study on July 26th, 2021. The keywords used were emotion regulation OR emotional state OR enjoyment OR boredom OR frustration OR anger AND performance OR academic achievement AND adolescents or teenagers or young adults or teen or youth AND parental divorce. Records identified through databases were 715 articles (Figure 1). Figure 1 describes the article selection procedure and extraction. We obtained 715 articles: CINAHL 648 articles, PUBMED 9 articles, SCOPUS 58 articles. Then we removed duplicate articles. Two researchers screened on title and abstract and 32 eligible articles were obtained. There were 23 articles that were eligible but did not meet the criteria for reasons of participants, study type, outcome and exposure, so that the final recorded was nine articles (4, 8, 14-21).

Risk of Bias

The risk of bias was measured using the JBI Critical Appraisal for assessing the result of published papers. We used JBI Critical Appraisal checklist for cross-sectional and cohort study with yes and no answers. Score more than 50% meets the critical appraisal (Table I).

Inclusion Criteria

We searched articles limited to 2011-2021 and in English. This study focused on emotion regulation,

and academic achievement among individuals with parental divorce. Individuals who were not in school were excluded from this study. Regarding the criteria for parents, these were parental divorce or divorced parents accompanied. Regulation emotions were measured using self-reports related to emotional disorders and not medical diagnoses, such as enjoyment, boredom, frustration, and anger. Academic achievements were determined by scores of GPA, combination of several lessons, or previous academic achievement. Tables were created to assist in the review of original articles. We did not require an ethical review board because we conducted a systematic review.

Table I. JBI Checklist to assess quality of published papers

No	Source	Criteria											Score		
		1	2	3	4	5	6	7	8	9	10	11			
	Cohort study	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	11
1	Victor Cebotari et al., 2018	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓	81.8%
2	Escapa, 2017	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓	81.8%
3	Mandemakers & Kalmijn, 2014	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
4	Modecki, Hagan, Sandler, & Wolchik, 2015	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
5	Zeratsion et al., 2015	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
	Cross-sectional study	1	2	3	4	5	6	7	8	9					Score
6	V. Cebotari & Mazzucato, 2016	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
7	Hu, 2018														
8	Orgilís, Johnson, Huedo-Medina, & Espada, 2012	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
9	Spremo, 2020	✓	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	78%

RESULT

The original articles included in the systematic review were those with outcomes of both emotion regulation and academic achievement, and the exposure was parents who were divorced. In terms of emotion regulation, there were two articles which measured wellbeing with indicators of life satisfaction and happiness (Table IV and V). In terms of academic achievement, all articles showed that divorce-related to decrease in academic achievement, decreased performance on several subjects, decreased desire to continue school, and not enjoyment of the learning process (Table III).

Table III. Characteristic of include study academic achievement

Source	Year	Study design	Country	Sample size	Age of children and young adolescents	Academic achievement	Type of Family	Focus of Study
1 V. Cebotari & Mazzucato, 2016	2011	Cross-sectional	Ghana, Nigeria, and Angola	Ghana (N= 2760)	11-14 years	Index of grade in language, mathematics, and science	Migrant parents and Divorce	International parental migration accompanied by parental divorce were predictors for decreased school performance
				Angola (N = 2243)	15-17 years			
				Nigeria (N = 2168)	18-21 years Girls only			
2 Escapa, 2017	2006-2010	Longitudinal	Spain	2731	Adolescents (13-16 years old) Boys and girls	Grade in the last evaluation period (fail or excellent)	Conflict and family structure (divorce)	Respondents with parental divorce were more likely had poor educational achievement
3 Modecki, Hagan, Sandler, & Wolchik, 2015	-	Cohort study	Not known	156 adolescents	15-19 years old Boys and girls	Grade at high school	Parental divorce when children at 9-12 years old	Fathers with low conflict had effect on children's academic achievement
4 Zeratsion et al., 2015	2000/2001 and 2004	Cohort study	Oslo, Norway	1861	15-16 years old Boys and girls	Scores were obtained in mathematics, Norway language (writing), English, and social sciences In addition, desire to continue school	Parental divorce	Adolescents with divorced parents have no ambition to continue their education to college

Table IV. Characteristic of include study emotion regulation

Source	Year	Study design	Country	Sample size	Age of children and young adolescents	Type of emotion regulation	Type of Family	Focus of Study
1 Victor Cebotari et al., 2018	2013-2015	Longitudinal	Ghana	N= 741	Children and youth (12-21 years old) Girls only	Well-being (self-rated health, happiness, life satisfaction)	<i>Migrant worker</i> accompanied by parental divorce	Respondents with parental migration or parental divorce are more likely to have decrease well-being and decrease in school enjoyment
2 Hu, 2018	September 2012 – October 2013	Cross-sectional	Hubei, China	423	Adolescent (14 years) Boys and girls	Depression <i>(Psychological well-being)</i>	Parental migration accompanied by parental divorce	Adolescents with parental migration not affected on depression However adolescents with parental divorce affected their desire to continue school
3 Spremo, 2020	2020	Cross-sectional	Not known	590	14 -18 years old Boys and girls	Risk Behavior Questionnaire by K. Berg-Kelly (Q-2000).	Family structure (parental divorce)	The responses of children with incomplete families were loneliness, sadness and suicidal ideation

There were two articles that came from Africa, two from Spain, China and Norway each had one article, and three articles did not mention the place of the study. There were two articles focused on female respondents and the rest of the articles were male and female respondents. Regarding the research study design, four articles were cross-sectional and five longitudinal studies (Table II).

Table II. Characteristic of Samples Included in the Systematic Review

Variable	Category	Number of Sample
Location	Ghana, Nigeria, and Angola; Kumasi and Ghana	2
	Spain	2
	China	1
	Norway	1
	Not known	3
Report year	2000-2004	1
	2005-2010	1
	2010-2015	4
	2016-2020	1
	Not known	2
Age of children (year)	Childhood (0-10)	1
	Adolescent (11-18)	5
	Adolescent and Young adult	3
Child sex	Boys only	0
	Girls only	2
	Both boys and girls	7
Study design	Cross-sectional	4
	Cohort Study	5

Table III-V shows that there were nine articles included in the results of the systematic review. The results of the study showed that parental divorce was predictor of decrease in academic achievement and emotional regulation disorders. Some articles included other adversities, such as divorced parents and parents becoming migrant workers (two articles), parents divorced and experiencing conflict (one article).

Regarding emotional regulation, parental divorce was predictor of decrease in wellbeing with indicators of decreased in happiness, and life satisfaction (two articles). Regarding academic achievement, there were eight articles which showed the evidence that parental divorce was predictor of decline in academic achievement, especially in mathematics and science; mathematics and Chinese; mathematics, Norwegian and English (three articles); English (one article); decrease in GPA score (three articles); and did not enjoy school and had no desire to continue (two articles) (Table III and Table V).

Table V. Characteristic of include study academic achievement and emotion regulation

Source	Year	Study design	Country	Sample size	Age of children and young adolescents	Type of emotion regulation	Academic achievement	Type of Family	Focus of Study
1 Mandemakers & Kalmijn, 2014	Children born in 1970	Cohort study	Data from British Cohort Study	9166	5 years and 10 years Boys and girls	child's behavior and psychological well-being	the Copying Designs test and the English Vocabulary test	Parental divorce	Children with parental divorce had lower score of well-being compare than children with non-parental divorce Children with parental divorce had lower academic achievement scores than children with non-parental divorce
2 Orgilgis, Johnson, Huedo-Medina, & Espada, 2012	2011	Cross-sectional	Spain	342	Adolescents 14-18 years old Boys and girls	The Social Anxiety Scale for Children-Revised (SAS-A)	Self-Description Questionnaire II, brief	Parental divorce	Adolescents with divorced parents had lower academic performance than adolescents with non-parental-divorced. There is no difference in emotion regulation, especially anxiety, between adolescents with divorce parents or not

DISCUSSION

This study reported the systematic review of the relationship between individuals with parental divorce on emotional regulation and academic achievement. The review showed that there was a relationship between individuals with parental divorce on decrease in emotion regulation, especially wellbeing. In addition there was relationship between individuals with parental divorce on decrease in academic achievement. However, there were several studies that mentioned that parental divorce had no relationship between emotional regulation disorders, especially anxiety or behavioral

disorders (8, 19, 21).

Divorce causes trauma (22) as well as conflict (15). Living with parents is the best environment for children, specifically fathers can become reliable sources for their children (23). In addition divorce also weakens the relationship between parents and children. Weak relationship decreases motivation and reduces wellbeing among children (24, 25). Further, children are not satisfied with their lives, including school life (4). Divorce also can decrease economic power and financial problems, social capital, changes in friends, and children having to move. So, parents are unable to support their children's education. Further, children are very dependent on their parents to finish their school assignments (9).

The results of the systematic review contribute to the education of individuals with parental divorce and also to the regulation of emotions, especially wellbeing. Divorce causes individuals to experience a decrease in wellbeing with indicators of life satisfaction, happiness, and physical health status (4, 8, 14, 15). In addition, divorce affects academic achievement (4, 8, 14-19, 21, 26, 27). Based on this evidence, programs are needed to support individuals with parental divorce. Emotional support is needed for individuals with parental divorce to control their emotions (28). Decrease in wellbeing and academic achievement can be prevented with educated father (16). Several limitations of this study should be considered. This study conducted a systematic review and has not yet measured the quantitative effect of divorce on emotional regulation and academic achievement. Further study is needed to conduct meta-analysis design.

CONCLUSION

Parental divorce decreases wellbeing and academic or school performance. Programs for individuals with divorced parents are needed to prevent this condition.

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