

How Do Family Structure and Family Process Matter? A Comparative Study on the Impacts of Military Deployment and Single Parenthood on Children's Psychological Well-Being

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Children from two-parent families have better outcomes, on average, than children from single-parent families. Yet the mechanisms associated with family structure and family process that produce divergent outcomes are less well understood. Based on data from the 2011-2015 National Health Interview Survey (N = 26,783), I leverage the case of military families with deployment and examine the impacts of parenting quality, economic capital, and social capital on children's psychological well-being. The regression results show that single parenthood produced by divorce, separation, and birth out of wedlock leads to worse child outcomes than single parenthood produced by military deployment, and family process partially explains the variation in children's well-being beyond family structure. Marriad families, military or civilian, deployed or not, enjoy advantages that translate into positive child outcomes. Marriage, therefore, emerges as the primary axis of inequality, and maintaining a healthy marriage better promotes children's well-being.

Keywords: family structure, family process, military deployment, single parenthood, children's well-being

Over the past half-century, the proportion of children in single-parent families has surged; approximately 3 out of 10 American children now live in single-parent homes (U.S. Census Bureau, 2018). Social scientists have been interested in studying and understanding the relationships between single parenthood and child outcomes (Anderson, 2014; Brown, Manning, & Stykes, 2015; McLanahan & Sandefur, 1994). Economists and sociologists have estimated the consequences of family union and dissolution on child physical health (Bzostek & Beck, 2011), emotional well-being (Lee & McLanahan, 2015), academic achievement (Amato, Patterson, & Beattie, 2015), and other behavioral problems (Magnuson & Berger, 2009). The general conclusion has been that children from two-parent families have better outcomes than children from single-parent families (King, Boyd, & Pragg, 2018), and maintaining a healthy marriage promotes superior child behavior, development, and future health (Anderson, 2014). To better understand the mechanisms associated with family structure and family process that produce divergent outcomes, I leverage the case of military families with deployment and examine the impacts of parenting quality, economic capital, and social capital on children's psychological well-being.

Studies examining the variation in child well-being among different types of families focus on three strands of literature. The first strand argues that the number of parents matters, and two is better than one

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(Musick & Meier, 2010) because of better time management and division of labor (Cigno, 1991). Children from two-parent families tend to fare better with less internalizing and externalizing problems, compared with the children with an absent parent (Brown, 2006). The second strand argues that it is not the quantity but the quality of parents that matters: better-behaved parents produce better-behaved children, and depressed parents may produce depressed children (Ringoot et al., 2015). The third strand argues that it is the financial and social capital parents bestow upon children that matter, because money and networks explain much of the associations between suboptimal family types and poorer child outcomes (McLanahan & Sandefur, 1994). These explanations are generalized into two types of explanations—the perspective of family structure ("quantity of parents" and socioeconomic status) and the perspective of family process ("quality of parents"). I took a quasi-experimental approach to examine and evaluate these two perspectives by introducing an understudied family, military families with deployment(s), in the analysis.

Military families with deployment(s) are like single-parent families. One parent is absent due to deployment, and one parent stays at home to take care of children. The family structure between military families with deployment(s) and single-parent families is similar. However, these two families are also different. Children from single-parent families may experience parental conflicts and other family dysfunctions due to divorce or separation (Anthony, DiPerna, & Amato, 2014). Military families tend to stay together, managing and conquering the stress caused by deployment (Boss, Bryant, & Mancini, 2017). The family processes between military families with deployment(s) and single-parent families are different.

This paper took advantage of military families who share similar family structure but different family process with single-parent families and unlocked new insights on the two perspectives by directly examining the mechanisms of (a) parenting quality, (b) economic capital, and (c) social capital. Based on the 2011-2015 National Health Interview Survey (NHIS), I used linear regression models and found that single parenthood produced by divorce, separation, and birth out of wedlock leads to worse child outcomes than single parenthood produced by military deployment, and family process partially explains the variation in child well-being beyond family structure. This study contributes to the literatures in military sociology and family sociology by linking military-related parental absence to family structure and deployment-related psychosocial experience to family process. It better informs the ongoing conversation on the influence of family structure versus family process in shaping child outcomes (King et al., 2018) with a quasi-experimental approach in family studies.

The Perspective of Family Structure

Time and Involvement

The number of parents presented in a household matters for child development (Cairney, Boyle, Offord, & Racine, 2003; Frisco, Muller, & Frank, 2007). This explanation often dwells on the household division of labor between heterosexual parents (Becker, 1981). One parent, often the mother, provides more unpaid childcare in the domestic sphere. The other parent, often the father, exerts labor power and concentrates on paid work. Two parents complement each other in the domestic and industrial terrain (Becker, 1981). Single parents may have to do both, which leaves less time to monitor and engage with their children, resulting in less parental engagement and supervision (Raymo, 2016; Ziol-Guest & Dunifon, 2014). With less parental involvement, single parents are more likely to be hands-off, exerting weaker control and making fewer demands (Thomson, McLanahan, & Curtin, 1992). Time invested in children is beneficial for their well-being (Campbell, Howard, Rayford, & Gordon, 2015), but single parents do not provide as much support in general (Thomson, Hanson, &

McLanahan, 1994). Military families with deployment share a similar family structure with divorced, separated, and never-married families; the structural explanation of time and parental involvement predicts similar outcomes of children from single-parent families via divorce, separation, out-of-wedlock birth, or military deployment.

Economic Capital

Money contributes to child development (Cherlin & Seltzer, 2014). Families with two working parents have two sources of income, and it is economically efficient to maximize joint family utility as time, energy, and money are pooled (Ermisch, 2016; Becker, 1981; Becker & Tomes, 1986). A divorced, separated, or never-married parent tends to have a single stream of income. This parent does not enjoy gains from shared expenses (Thomson & McLanahan, 2012) and, therefore, lets go of economies of scale. With less financial resources, single-parent families are at a much higher risk of poverty (McLanahan & Percheski, 2008), and the negative consequences of poverty on children are often lifelong (Dreyer, Chung, Szilagyi, & Wong, 2016).

Military families with deployment do not experience fluctuations in family income like divorced, separated, or never-married families. Service members are awarded more financially than their civilian counterparts with a similar educational attainment (Bennett & McDonald, 2013). With housing, transportation, and medical benefits, the extra pay military personnel receive during their combat or peacekeeping missions helps their families operate smoothly at the home front (Hosek & Wadsworth, 2013). Therefore, the structural explanation of economic capital predicts better child outcomes for children from military families with deployment than their civilian counterparts from divorced, separated, and never-married families.

Social Capital

Social capital broadens opportunities in life (Granovetter, 1973). It connects one party to another and exchanges information among them. Strong ties between family and friends provide immediate help and emotional support, and weak ties with the broader community provide helpful information in the public sphere and serve as bridges outside one's core network (Granovetter, 1973). When a family moves, ties are often destroyed (Anderson Leventhal, & Dup ér é 2014). Children of divorced or separated parents move more often than children of intact families (Holupka & Newman, 2011), and children from never-married families tend to encounter more disruptions than those from married families (Andersson, 2002). Without long lasting friendships and ties to a community, children are missing an emotional buffer and more likely to be stressed and have worse adjustments across various developmental domains (Adam, 2004).

Children of military families also experience high residential mobility. They move three times more often than their civilian peers and relocate domestically and internationally every one to four years (Bradshaw, Sudhinaraset, Mmari, & Blum, 2010). Moving and relocating reduces accumulated social capital, but military families tend to move within designated military communities, and formal and informal military networks operate continuously (Drummet, Coleman, & Cable, 2004). Military children transfer among military schools and form friendship with other military children, who share similar daily schedule, structure, and way to life. Peers groups are, therefore, more fluid and may welcome newcomers more easily than outside the military (Bailey, 2013). Social ties are re-established and maintained within the military network.

Relocating constitutes the irregularity in divorced, separated, never-married, and military families with deployment (Anderson, 2014), and children from these families disengage from activities, friendships, and responsibilities (Seltzer, 1994). Whereas children from single-parent families tend to be emotionally

disconnected after each move, military-connected children may have different experiences, connected by formal and informal networks among military communities. The structural explanation of social capital then predicts uncertain outcomes between children from single-parent families and military families.

The Perspective of Family Process

Parenting Quality

Parenting quality is different among families. Married parents are happier and healthier (Waite & Gallagher, 2000), who establish stable and trustful bonds with children and apply consistent disciplines at home (Peters & Dush, 2009). Children from married families tend to respond positively and fare better (Baumrind, 1991). Single parents tend to have open and prolonged conflicts during family dissolution, damaging children's self-esteem and producing short- and long-term maladaptive outcomes among youth (Amato & Booth, 1997). Divorced and separated individuals tend to encounter more physical and psychological issues, experiencing severe depression and anxiety symptoms (Cairney et al., 2003). They are also more likely to engage in substance abuse and have higher risk of morality (Zebrak & Green, 2016). These individual health-related issues negatively impact their parenting quality (Sandler et al., 2012), depreciating their effectiveness as parents. Disruptive parenting and family create adverse effect on child and adolescent psychosocial development (Parke et al., 2004).

Unstable and unpredictable work schedules have the most harmful associations with child outcomes (Leibbrand, 2018), and children, who have experienced periodic parental deployment(s), are likely to show signs of psychological distress and psychosocial difficulties (Aranda, Middleton, Flake, & Davis, 2011; Chandra, Martin, Hawkins, & Richardson, 2010). Children from military families with deployment(s) may do better than those from divorced or separated families within a control environment of military bases. Military schools and communities actively address children's needs by dedicating educational and counseling programs in coping with parental deployment (U.S. Department of Defense, 2012), and service members are concerned with how deployment may weaken parent-child bond and impact parenting quality; bettering parenting skills and supporting children's emotional needs are top priorities among military parents (Walsh et al., 2014).

The processual explanation of parental quality predicts that children from military families with deployment would fare better than children from divorced, separated, and never-married families, due to the variation in parenting behaviors, parental stress, and childrearing skills, associated with family dysfunctions or military deployment.

Selection Bias

People who divorce or break up may have unobserved qualities, making relationship dissolution and problems for children more likely (Bradbury & Karney, 2004; Previti & Amato, 2004). Previous studies have shown that maladaptive behaviors in children associated with family dissolution are present before family dissolution takes place (Strohschein, 2005). This selection bias may not apply to intact military families with deployment. Unlike single parents who divorce or break up, the homestay parents in military families do not choose to be single parents. They do not have preexisting qualities that make deployment(s) more likely.

There may also be a positive selection among military families. A "Family Resilience Framework" suggests that trauma tends to have long lasting impacts on the whole family (Patterson, 2002; Walsh, 2016). This rather controversial approach highlights the strengths of a family, empowering each family member to

gradually accept then eventually defeat ongoing challenges (Saltzman, Lester, Milburn, Woodward, & Stein, 2016). It offers explanations that most service members and their families go through difficult times and stay together (Masten, 2013). The model also suggests that uncertainties of military life may even promote resilience in children and adolescents (Lester et al., 2013; E. G. Weber & D. K. Weber, 2005). Selection bias, therefore, predicts that children from military families with deployment would do better than children from single-parent families. Table 1 summarizes the theoretical predictions of each perspective.

Table 1

Theoretical Frameworks and Predictions Between Married Military Families With Deployment (MFD) and Single-Parent Civilian Families (SPCF)

	Similar Results	MFD Fare Better than SPCF	Uncertain Results
Time and Involvement	\checkmark		
Economic Capital		\checkmark	
Social Capital			\checkmark
Parental Quality		\checkmark	25510
Selection Bias		V	

Data and Analytical Strategies

This study uses a national representative data from the 2011-2015 pooled National Health Interview Survey (NHIS), sponsored by the National Center for Health Statistics (NCHS). Multistage probability samples are collected yearly, and the sampling design in the 2011-2015 sample was implemented in 1997. One sample adult and one sample child, if available, are randomly selected from each household, and they participate in the Sample Adult and Sample Child Core questionnaires. Adults and children face different sets of constraints and, therefore, socioeconomic and health problems, so adult and child questionnaires differ in some items, but both collect basic information on health status and health behaviors (NCHS, 2017). Each sample adult answers questions for him/herself, spouse, and a sample child in the same household (NCHS, 2017). The Supplements collect information on additional health-related concerns, including children's mental health, which constitute the outcome variable in this study.

Analytic Sample

Of the 97,705 records of sample parents with sample children aged 4-17, sample adults who did not participate in the Child Mental Health Questionnaire were removed (N = 26,782). Records with invalid or incomplete answers to selected questions on child psychological well-being (N = 22,136) and adult psychological well-being were excluded (N = 20,247). I then selected records with reported marital status (N = 1,477 excluded) and military connectedness and or deployment (N = 109 excluded). Widowed families were excluded due to a small number of observations (N = 71). Known marital status guarantees that each record falls into one of the three following categories: (1) married; (2) divorced or separated; and (3) never-married. Known military connectedness and or deployment assigns each record into one of the three groups: (1) civilian; (2) military without deployment; and (3) military with deployment. The final analytic sample consists of 26,783 observations, which represents 27.4% of the records initially included in the study.

Dependent Variable

Children's psychological stress and depress symptoms constituted the dependent variable and were accessed by a latent, conceptual variable (here referred to as a scale), constructed by six questions selected by

the NHIS from the Strengths and Difficulties Questionnaire Extended (SDQ-EX), developed by Goodman (1997), Goodman, Meltzer, and Bailey (1998), and Goodman, Lamping, and Ploubidis (2010). These questions are divided into five subscales, measuring five psychological attributes of (a) emotional symptoms; (b) conduct problems; (c) hyperactive behavior; (d) peer relationships; and (e) prosocial behavior. They ask: "During the past 6 months... (a) Did [sample child] have difficulties in emotions, concentration, behavior, or being able to get along with other people? (b) Did [sample child] get along better with adults than with other children/youth? (c) Did [sample child] have short attention span and easily get distracted? (d) Was [sample child] often unhappy, depressed or tearful? (e) Was [sample child] generally well behaved, usually did what adults requested? (f) Did [sample child] have many worries, or often seem worried?". Valid responses range from "not true" (0) to "somewhat true" (1) and to "certainly true" (2). The construction of child psychological stress and depress scale (CPS) is based on a simple addition of the six distinct questions with homogeneous weighting of 1 and standardization (Cronbach's $\alpha = .76$). The level of severity of child psychological stress and depress increases from lowest to highest; a higher CPS value indicates worse child psychological well-being.

Independent Variables

Family structure. The NHIS includes family structures at the time of the survey and its cause (marriage, divorce, out-of-wedlock birth, and deployment). The NHIS also collects comprehensive information on military connectedness and deployment. Respondents are military connected if they answered affirmatively to the question—"Are you (or spouse) on full-time active duty with the Armed Force?" (active duty). Military personnel, who had been deployed overseas, were identified if they answered affirmatively to the question—"Did you (or spouse) ever serve in a foreign country during a time of armed conflict or on a humanitarian or peacekeeping mission?". More than 1,500 respondents had been deployed overseas in the analytic sample. Based on these criterions, five family structures are created: (a) married civilian families (n = 16,732); (b) married, military families without deployment (n = 40); (c) married, military families with deployment (n = 573); and (f) never-married civilian families (n = 6,965).

Adult stress and depression. Mothers' and fathers' adult psychological stress and depress scales (APS) are constructed by six adult mental-health questions, measuring psychological distress over a 30-day recall period. These six questions, developed by Ronald C. Kessler and known as the Kessler 6 Scale (K6), include: "During the past 30 days, how often did you feel ... (a) everything was an effort? (b) hopeless? (c) nervous? (d) restless? (e) sad and nothing could cheer you up? (f) worthless?". The responses range from "none of the time" (0) to "a little of the time" (1) to "some of the time" (2) to "most of the time" (3) and to "all of the time" (4). The range for responses summed from six questions on the K6 Scale is thus 0 to 24, with 0 suggesting the lowest level of psychological concern, and 24 suggesting the highest level of psychological stress (NCHS, 2017). A person with a score of 13 or greater is likely to be experiencing severe mental illness (NCHS, 2017). The construction of APS is based on simple addition of questions above with homogeneous weighting of 1 and standardization (Cronbach's $\alpha = .87$ for mothers and Cronbach's $\alpha = .85$ for fathers). One single measure of parental psychscale scale (PPS) is then constructed based on the APS for mothers and fathers¹. A higher PPS value indicates worse psychological well-being for a parent.

¹ The construction of the parental psychscale scale (PPS) is based on the higher value of APS between mother and father within each sample household.

Health behaviors. Parents' physical health and health-related behaviors include the frequencies of alcohol use $(0 \sim 7 \text{ days})$, cigarette use ["not at all" (1), "some days" (2), and "every day" (3)] in the past week, and frequency of feeling physically exhausted in the last three months ["never" (1), "some days" (2), "most days" (3), and "every day" (4)]. Antidepressant usage (0 = no; 1 = yes) is also used as a proxy of psychological weaknesses in the regression models.

Social capital depreciation scale. A social capital depreciation scale (SCDS) is constructed by four questions, introduced in the Adult Supplemental Items (ASI) section of the Sample Adult questionnaire in NHIS. These questions include: "How much do you agree that... (a) this is a close-knit neighborhood? (b) there are people you can count on in this neighborhood? (c) people in this neighborhood can be trusted? (d) people in this neighborhood help each other out?". The responses range from "definitely agree" (1) to "somewhat agree" (2) to "somewhat disagree" (3) and to "definitely disagree" (4). The construction of the SCDS is based on simple addition of questions above with homogeneous weighting of 1 and standardization (Cronbach's $\alpha = .91$ for mothers and Cronbach's $\alpha = .90$ for fathers). One single measure of household social capital depreciation scale (HSCS) is then constructed, based on the SCDS for mothers and fathers². A higher value indicates that less self-claimed social capital and community resources for a household. Interaction terms between HSCS and family structures are included, indicating the extent to which children's psychological well-being differs among various families by the variation in social capital.

Control Variables

A set of demographic controls are used to reflect socioeconomic backgrounds of the sample parents and sample children. They include child race and ethnicity (Non-Hispanic White; Non-Hispanic Black; Non-Hispanic Asian; Hispanics; and other races), child gender (1 = female, 48.27%), child age (4 to 17 years), parental education (less than or equal to 8th grade; high school dropout; high school diploma/GED; some college; associate's degree; bachelor's degree; advanced or professional degrees), and total family income. Interaction terms between family income and family structures are included, indicating the extent to which children's psychological well-being differs among various families by the variation in economic capital. An indicator variable on governmental housing assistance is used as a proxy for family socioeconomic status (1 = acceptance of housing assistance). Accepting housing assistance may associate a family with a lower socioeconomic status, excluding military housing. The means (and percentages, where appropriate) of all variables and by family structures are shown in Appendices A and B.

Regression Models

I used ordinary least squares (OLS) regression models with five specifications to estimate the impacts of family structure, family process (parenting quality), socioeconomic capital, and other predictors on child psychological well-being. The purpose of the analyses diagrammed in Table 2 is to examine the size and direction of changes in the effect of family structure as variables on family process, economic capital, and social capital are added to the model. In doing so, I assess whether the effects of family structure depend on other variables that are included in or omitted from the models.

Model 1 is the baseline model, estimating the impacts of family structure on child psychological

 $^{^2}$ The construction of the household social capital depreciation scale (HSCS) is based on the higher value of SCDS between mother and father within each sample household.

well-being. Model 2 considers the direct effects of family structure, when respondent's demographic characteristics, including gender, race, age, parent educational attainment, and other indicators of socioeconomic status, are added. Model 3 examines the impacts of parenting quality, proxied by parental psychological scale and other health-related behaviors. Model 4 adds socioeconomic capital and estimates the moderating effects of social and economic capital. Model 5 is the full model.

Table 2

Regression Models

	Model 1	Model 2	Model 3	${\rm Model}\; 4$	Model 5
Family Structure	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Demographic Control		\checkmark	\checkmark	\checkmark	\checkmark
Parenting Quality			\checkmark		\checkmark
Economic Capital			0.74	\checkmark	V
Social Capital				\checkmark	\checkmark

Results

Table 3 shows the results from regressions of child psychological stress and depress scale on family structure, parenting quality, economic capital, and social capital. The results from Model 1 show that compared with children from married civilian families (reference), children from married military families with deployment fare worse psychologically. Their psychological stress is, on average, one tenth of a standard deviation higher (p < .01). Children from divorced or separated families (with or without deployment) also fare worse. The psychological stress of children from divorced or separated military families with deployment is nearly one half of a standard deviation higher than children from married civilian families (p < .001). Never-married families situate in between married military families and divorced families (with or without deployment) with a CPS that is one third of a standard deviation higher than the reference.

The t-statistics tested whether single-parenthood via deployment creates less harmful results for children than other single-parenthoods in Model 1. When the coefficients from each family structure are compared, the t-values are 5.56 between military families with deployment and divorced or separated civilian families and 6.12 between military families with deployment and divorced or separated families with deployment, rejecting that these pairwise coefficients are the same. These results show that single parenthood with different causes has a differential effect on children, and children from military families with deployment fare better psychologically, adding on to the current understanding of children's depression, anxiety, and other emotional issues across family structures (Lester et al., 2010).

Model 2 estimates the direct effects of family structure with adjustments of demographic controls. The results on family structure indicate that after gender, race, parental education, and an indicator for governmental housing assistance are included, the coefficient for married military families with deployment is reduced slightly but still statistically significant. Comparing within the model, children from divorced or separated families (with and without deployment) and never-married families still fare worse psychologically than children from married civilian families; these children have psychological stress that is between one quarter and one third of a standard deviation higher than the reference group. Comparing between Model 1 and Model 2, family structure coefficients are smaller in magnitude; demographic and socioeconomic differences account in part the relationship between children's psychological well-being and family structure. Moreover, the results on

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socioeconomic backgrounds (not shown) show that girls tend to be less psychologically stressed than boys; psychological stress increases with child's age; Hispanic, Asian, and Black children all have lower psychological stress than non-Hispanic White children³. Higher parental education aids child emotional well-being, and children whose family have received governmental housing assistance fare worse psychologically by one fifth of a standard deviation (p < .001).

Table 3

Regression Results of Child Psychological Scale on Family Structure, Family Process, and Socioeconomic Backgrounds

	Model 1	Model 2	Model 3	Model 4	Model 5
1. Married Civilian Families	Ref	Ref	Ref	Ref	Ref
2. Married Military Families	0.052	0.004	0.004	0.008	0.008
	(0.152)	(0.150)	(0.146)	(0.150)	(0.146)
3. Married Military Families with Deployment	0.084**	0.068*	0.051+	0.069*	0.051+
	(0.030)	(0.030)	(0.029)	(0.030)	(0.029)
4. Never Married Civilian Families	0.306***	0.277***	0.226***	0.253***	0.213***
	(0.013)	(0.015)	(0.015)	(0.015)	(0.015)
5. Divorced or Separated Civilian Families	0.369***	0.301***	0.250***	0.287***	0.243***
	(0.039)	(0.039)	(0.038)	(0.039)	(0.038)
3. Divorced or Separated Families with Deployment	0.424***	0.357***	0.284***	0.329***	0.269***
	(0.044)	(0.044)	(0.043)	(0.044)	(0.043)
7. Control (Gender, Race, Age, Parent Ed)		\checkmark	\checkmark	\checkmark	\checkmark
8. Parent Adult Psychscale			0.232***		0.227***
			(0.007)		(0.007)
). Economic Capital				-1.07***	-0.73***
				(3.16e-7)	(3.08e-7)
o. Economic Capital x Family Structure				Married Civilian Family***	Married Cvilian Family***
1. Social Capital				0.084***	0.052***
				(0.011)	(0.011)
2. Social Capital x Family Structure				Mil Deploy [*] &Divorce no Deploy [*]	Mil Deploy*&Divorce no Deploy*
N	26,783	26,783	26,783	26,783	26,783

Note. Standard errors in parentheses. In models 4 and 5, only married civilian families showed significant results on the interaction term between economic capital and family structure, and only military families with deployment and divorced or separated families with no deployment showed marginally significant results on the interaction terms between social capital and family structure. +p < 0.1; *p < 0.05; **p < 0.00; **p < 0.00.

Model 3 includes family process variables by adding parents' psychological stress and health-related behaviors. These variables reduced the significance of the coefficient for married military families with deployment to marginally acceptable level (p < .1). The coefficients for the divorced families with and without deployment are significant and positive. Children from these two divorced families have a psychological stress level that is between one fifth and one third of a standard deviation higher than the reference group (p < .001). Higher levels of parental psychological stress increase children's psychological stress by one quarter of a standard deviation (p < .001). Smoking, feeling exhausted, and using antidepressant also significantly diminish children's emotional well-being (p < .001). These results showed that parenting quality explains some variation in child psychological outcomes beyond family structure.

Model 4 includes economic and social capital. Higher family income boosts child psychological well-being, but children, whose family accepts governmental housing assistance, do not get such a leverage; their psychological well-being is comparatively less. By family structure, only married civilian families enjoy benefits on child psychological well-being that more financial capital mediates child depressive symptoms (p < .001). The results for military families and other single-parent families, with or without deployment, did not reach acceptable significance level, so financial capital did not differentiate them, and the prediction from the perspective of economic capital is empirically rejected. In terms of social capital, more is better than less, and

³ The regression results of demographic controls are available upon request.

lack of social capital reduces children's psychological well-being. By family structure, military families with deployment and divorced families without deployment showed marginally significant results (p < .05) that lack of social capital and emotional buffer damages children's psychological wellbeing, but t-statistics failed to reject that they have the same effect. So military families with deployment is, to a certain extent, similar to divorced families but different from other types of single-parent families by the variation in social capital; the testing result of the perspective of social capital is inconclusive.

Model 5 shows the results from the full model, including all variables on family structure, family process, economic and social capital (and their interaction terms), and demographic controls. The coefficients on family structure are significant for divorced or separated families (with and without deployment) but no longer significant for married military families. Family process proxied by parents' psychological stress worsens child psychological well-being significantly by one quarter of a standardization (p < .001). Smoking, feeling exhausted, and antidepressant usage increase child psychological stress, diminishing their mental well-being. More financial capital mediates child depressive symptoms among married civilian families (p < .001), and social capital differentiates military families from other single-parent families, except divorced families without deployment. Overall, parenting quality weakens the impacts of family structure for military families, differentiating them from other single-parent families, and enacts major impacts on child psychological welling. The full model confirmed the predictions from the mechanism of parenting quality, rejected the predictions from the mechanism of economic capital, and produced inconclusion from the mechanism of social capital.

Is Parenting Quality Explaining Away the Effects of Family Structure?

Parents' psychological stress and other health-related behaviors are used as proxies for parenting quality in Models 3 and 5. Rates of change are calculated to test whether parenting quality explains away the effects of family structure. Between Model 1 and Model 3, family processes explain away 33% and 32% of the effects of family structures for divorced or separated family with and without deployment. When socioeconomic background, social capital, and economic capital are considered in Model 5, family processes explain away 36% and 35% of the effects of family structures. Therefore, parenting quality does explain away some effects of family structure.

The t-statistics are calculated to detect a potential deployment effect within divorced or separated families. When families with and without deployment are compared, t-statistics failed to reject that they have the same effect on children's psychological outcomes. Therefore, deployment may not have an added effect within divorced or separated families, upholding the predictions of the perspective of family process that it is the suboptimal parenting quality, possibly associated with the unpleasant experiences over divorce or separation, that stresses children.

Discussions and Conclusions

The overarching goal of this study was to extend a conversation with the current literatures on family structure and family process by introducing an understudied family type, military family with deployment. By adopting a quasi-experimental approach, I directly estimated the differential effects of parenting quality, economic capital, and social capital on children's psychological well-being and indirectly tested the effects of time and parental involvement by family structure. There are four major findings from this study.

First, this study suggests that children from both married military families with deployment and divorced families have lower levels of well-being than children from married families. Previous research has shown that children, who grow up with two married parents, fare better, and having one parent in the household leads to worse child outcomes (Sigle-Rushton & McLanahan, 2004). Though not tested directly in this study, time and parental involvement may offer possible explanations. Single parents juggle between work and children, which results in lower levels of supervision (Ziol-Guest & Dunifon, 2014). Time and parental involvement explain some associations between family structure and child well-being (Hofferth, 2006).

Second, this study also suggests that divorced, separated, or never-married families have more negative consequences for children than military families with deployment; single-parent families via family dissolution or deployment are not the same. Permanent parental absence and temporal parental leave create differential effects on children's psychological well-being through various channels. Permanent single-parent families are likely to experience severe drops in economic and social capital (Page & Stevens, 2004) and household instability and residential moves after divorce or separation (Anderson et al., 2014; Holupka & Newman, 2011). Perhaps the stress associated with changes in household, both status and residence, results in emotional disconnections among children (Seltzer, 1994). Children of military families also experience high residential mobility but not financial loss (Hosek & Wadsworth, 2013). When counting social capital, such as the formal and informal military networks, military-connected children tend to have lower depressive symptoms and better academic performance (Lucier-Greer, Arnold, Mancini, Ford, & Bryant, 2015).

Third, this study further suggests that parenting quality proxied by parental psychological and physical well-being partially explains the impacts of family structure. Compared with married individuals, divorced and separated individuals tend to show more psychological and other health-related problems (Waite, Luo, & Lewin, 2009; Zebrak & Green, 2016). Divorce or break up increases distress among adults, impacting their ability to be effective parents (Peters & Dush, 2009) and stressing children with short- and long-term effects (Amato & Booth, 1997).

It is worth noting that the differences of the magnitudes of the coefficients for married civilian families and military families with deployment started small and stayed small between Model 1 and Model 3 (and between Model 1 and Model 5). The p-value increased marginally after family process variables and control variables were added, so it is likely that military families with deployment function like married civilian families, even with temporal parental absences. Though statistically different, one possible explanation for the minor difference is that instead of two, military families with deployment had one parent at times. The stay-home parent may experience extra stress, dealing with worriedness from spouse deployment (Kelley et al., 2001) and trying to take care of children alone, fluctuating their parenting styles and behaviors.

Fourth, one significant finding of this study suggests that marriage is the primary axis of inequality. Married families, military or civilian, deployed or not, enjoy advantages that translate into positive child outcomes. Unmarried families, divorced or never-married, military or civilian, carry disadvantages that translate into lower levels of child well-being. This result does not fit into any of the mechanisms reviewed earlier. After adjustments for all the controls, marriage still buffers the potential negative effects of deployment, so a stable and continuous family relation contributes to positive child developments (Brown, 2006).

Prior literature has shown that married people report more satisfaction with their lives and fewer mental and physical health problems due to efficiency gains from role specialization and utility maximization (Ermisch, 2016; Becker & Tomes, 1986). Partners' long-term commitment to each other and children provides insurance against emotional, physical, and financial adversity (Waite & Gallagher, 2000). Divorce has lasting adverse effects on children's mental health (Chase-Lansdale, Cherlin, & Kiernan, 1995). My findings confirm that the gains from marriage, even with deployment, are positive for children's psychological well-being.

There are several limitations to be noted. One limitation is that there is almost no direct measure of parenting quality in NHIS, such as disciplinary styles, displays of support, and affective dimensions of parent-child relations. Parenting quality is characterized by parents' psychological well-being and physical behavior in this study. Moreover, there is no complete history of marital status throughout childhood and young adulthood. Current marital status, collected at the time of the survey, is the only available measure. A child may have experienced other family structures that were different from the current one, so the limitation on current marital status downward biases the impacts of marriage, underestimating its benefits.

The data do not differentiate deployed parents who were overseas for armed conflict or humanitarian mission at the time of the survey or sometime during their lives before the survey. Distant deployment(s) in the past may have cumulative but reduced impacts on children's psychological health (Lester et al., 2010). As they grow older, new family experiences replace the old ones. On-going deployment may have the most direct impacts on children's emotional well-being. Without data on the timing of deployments (previous vs. current), its impacts may be underestimated. However, as it is discussed in the results, t-statistics failed to reject that divorced or separated civilian families and divorced or separated deployed families have the same effect on children's psychological outcomes. Therefore, deployment may not have an added effect; the impact of divorce likely overpowers the potential impact of deployment.

People may have unobserved qualities that make family life less stable, causing breakups and problems for children more likely (Bradbury & Karney, 2004; Previti & Amato, 2004). Selection bias is not empirically testable in this study. Some unobserved qualities may be cofounded with parental psychological and physical well-being, so the impacts of selection bias may not be independent.

Despite these limitations, the current study adds to the broader literature on family structure and family process. The findings suggest that family structure is a much more fluid and complex concept than previously perceived; different pathways to single parenthood create a differential effect on children's outcomes. To my knowledge, I provided the first analysis, studying the impacts of family structure and family process with a quasi-experiment of military families. The experiment results show that military or civilian, deployment or not, marriage provides some form of comforting mechanism to children and young adults. It should also be acknowledged that social and economic resources may act as buffers to children's depressive symptoms; providing greater institutional, communal, and familial support during parental absences may not only unify and strength families but also serve as an indirect source of mental health prevention.

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Appendix

Appendix A

Descriptive Statistics of All Variables in the Analyses

	M or %	SD
Dependent variable Child psychological stress and depress scale [CPS]	0.46	79.0
Family structure	c	¢
Married civilian families	02.47	0.48
Married military families (without deployment)	0.15	0.04
Married military families (with deployment)	4.02	0.20
Divorced or separated civilian families	5.21	0.22
Divorced or separated families with deployment	2.14	0.15
Never-married civilian families	26.01	0.45
Family process Docorted Developlenical Strees and Docores Coole (DDC)	5	000
a chian i sy churdycar but see and polycon version of the	0.31	0.03
Alcohol use $(0-7 \text{ days})$	0.85	1.30
Cigarette use (frequency)	1.24	0.62
Feeling Exhausted (frequency)	1.30	0.62
Antidepressant use $(1 = yes)$	0.21	0.15
Socioeconomic capital Social Capital Scale [HSCS]	0.22	0.65
Total Family Income	39.146.85	25,032.18
Governmental Housing Assitance $(1 = ves)$	0.06	0.24
)		•
$Demographic\ controls$		
Gender $(1 = female)$	48.27	0.50
Race/ethnicity		
Non-Hispanic White	48.10	
Non-Hispanic Black	15.51	
Hispanics	27.59	
Non-Hispanic Asian	6.60	
Other race	2.19	
Child age (years)	9.92	4.03
Parental education	2	2
Less than or equal to 8th grade	4.64	
High school dropout	8.80	
High school diploma/GED	19.44	
Some college	16.53	
Associate's degree	12.95	
Bachelor's degree	20.69	
Advanced or professional domas	16.04	

Appendix B Descriptive Statistics of All Variables by Family Structure

Table B. Descriptive Statistics of All Variables by Family Structure. (N = 26,783)

	Married Civilian	Military	Mil with Deployment	Divorced Civilian	Divorced with Deployment	Never-married Civilian
Family process						
Parental Psychological Scale [PPS]	0.10 (0.76)	0.12 (0.52)	0.73 (0.84)	0.91 (0.89)	1.80 (1.09)	0.11 (0.94)
Alcohol use (0-7 days)	0.92 (1.37)	0.78 (1.16)	1.03 (1.45)	0.93 (1.39)	1.10 (1.50)	0.67 (1.04)
Cigarette use (frequency)	1.15 (0.51)	1.25 (0.67)	1.21 (0.59)	1.50 (0.83)	1.48 (0.83)	1.39 (0.76)
Feeling Exhausted (frequency)	1.28 (0.59)	1.25 (0.59)	1.37 (0.70)	1.30 (0.64)	1.32 (0.70)	1.31 (0.66)
Antidepressant use $(1 = yes)$	1.02 (0.13)	1.03 (0.16)	1.04 (0.21)	1.03 (0.16)	1.03 (0.16)	1.02 (0.15)
Socioeconomic capital						
Social Capital Scale [HSCS]	0.39 (0.62)	0.11 (0.54)	0.14 (0.69)	0.74 (0.66)	0.51 (0.73)	0.14 (0.68)
Total Family Income	44,449.41	48,125	48.824.68	35,172.04	37,726.88	26,821.89
Govt Housing Assitance $(1 = yes)$	0.01 (0.11)	0.025 (0.16)	0.01 (0.10)	0.03 (0.17)	0.03 (0.17)	0.18 (0.38)
Demographic controls						
Gender $(1 = \text{female})$	48.24 (0.49)	37.5 (0.49)	50.37 (0.50)	46.74 (0.49)	47.12 (0.49)	48.19 (0.49)
Race/ethnicity						
Non-Hispanic White	56.44	72.50	71.06	51.47	58.64	25.71
Non-Hispanic Black	6.32	7.50	10.76	9.75	21.99	36.00
Hispanics	26.25	15.00	11.41	33.26	14.14	33.43
Non-Hispanic Asian	9.22	ο	3.71	2.29	1.92	2.00
Other race	1.77	5.00	3.06	3.23	3.32	2.86
Child age (years)	9.98(3.99)	11.08 (3.89)	10.33 (4.11)	10.58 (3.99)	11.40 (3.99)	9.51 (4.05)
Parental education						
Less than or equal to 8th grade	4.48	0	0	4.66	1.05	6.15
High school dropout	5.81	0	0.28	12.62	2.62	16.60
High school diploma/GED	14.32	0	0.09	30.18	24.26	30.96
Some college	12.78	22.50	18.46	20.93	30.54	23.09
Associate's degree	13.38	25	19.3	15.06	17.97	12.67
Bachelor's degree	26.48	25	29.13	12.33	16.75	7.78
Advanced or professional degree	23.85	27.40	23.75	4.23	6.81	2.74
n	16,732	40	1,078	1,395	573	6.965

Note. The descriptive statistics are based on the analytic sample, the unit for which is observation (N = 26,783). Standard deviation in parentheses.