Turkish Journal of Pediatric Disease

Original Article

Maternal versus paternal rejection in adolescent suicidality: A study in a socioeconomically disadvantaged cohort

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Received : 15.12.2025, Accepted : 06.04.2026 DOI: 10.12956/TJPD.2025.1283

ABSTRACT

Objective: Parental acceptance–rejection is linked to adolescent mental health, yet its distinct maternal versus paternal associations with suicidality in disadvantaged youth remain underexplored. This exploratory study aimed to delineate these specific relationships, examining perceived parental rejection as a predictor for suicidal ideation (SI) intensity, non-suicidal self-injury (NSSI), and psychopathology in a high-risk cohort.

Materials and Methods: Forty-six adolescents (82.6% girls; M age = 15.7±1.1) hospitalized in an ICU following a serious suicide attempt completed the Parental Acceptance-Rejection/Control Questionnaire and Youth Self-Report. A clinician assessed suicidality using the Columbia-Suicide Severity Rating Scale. Bivariate and multivariate regression analyses were performed to identify key predictors.

Results: A clear dissociation emerged between maternal and paternal roles. Greater perceived maternal rejection—particularly indifference and neglect—was significantly associated with higher SI intensity ($B = 0.128$, $p < 0.001$), and a perceived lack of maternal warmth correlated with depressive symptoms ($r = 0.454$, $p = 0.002$). In contrast, paternal acceptance was unrelated to SI or internalizing problems; however, paternal hostility was significantly associated with externalizing behaviors ($r = 0.381$, $p = 0.013$). Additionally, conduct problems were the only significant predictor of lifetime NSSI (OR = 1.125, $p = 0.040$), and SI intensity predicted a history of multiple suicide attempts (OR = 1.559, $p = 0.016$).

Conclusion: In this high-risk cohort, maternal rejection appeared to be more closely linked to suicidal ideation and internalizing distress, whereas paternal hostility showed a stronger association with externalizing behaviors. These exploratory findings point to the potential value of family-centered prevention approaches that enhance maternal responsiveness and address behavioral dysregulation to help mitigate suicide risk.

Keywords: Adolescent, parent-child relations, self-injurious behavior, suicidal ideation, socioeconomic disparities in health

Introduction

Suicide represents a significant public health challenge and is one of the leading causes of mortality in the adolescent population (1,2). Non-fatal suicidal behaviors, including suicidal ideation (SI), suicide attempts, and other forms of self-harm, signal profound psychological distress and often reflect both individual vulnerabilities and systemic gaps in prevention and support services (3,4). Current understanding suggests that suicide is not an isolated event but the culmination of a complex trajectory shaped by familial, social, cultural, and psychological factors beginning early in life (5,6).

Attachment theory posits that early parent–child relationships shape internal working models that influence emotion regulation, self-perception, and interpersonal functioning across the lifespan (7). Secure attachment is associated with a foundational sense of safety and self-worth, facilitates effective emotion regulation, and promotes resilience to adversity (8). In the absence of stable parental support, adolescents may adopt maladaptive coping strategies, which can exacerbate existing psychological distress (9,10). Within this framework, suicidal behavior can emerge as a maladaptive response to perceived rejection or emotional invalidation, particularly among youth who feel unworthy or

unsupported in their familial or social environments (11,12). These relational disruptions contribute to dual vulnerabilities: impaired development of internal regulation capacities and reduced access to effective external support during crises.

Among adolescents experiencing socioeconomic adversity, chronic stressors such as financial instability, limited access to care, and social marginalisation further intensify emotional distress and elevate suicide risk (13,14). Within these high-risk contexts, parental acceptance–rejection may be especially salient in shaping adolescent's affective development and coping capacities (15).

Despite extensive evidence linking parental acceptance–rejection to youth mental health, research directly examining these dynamics among socioeconomically disadvantaged adolescents who attempt suicide remains limited. Clarifying how parental behaviors interact with economic adversity is essential for developing targeted interventions to reduce suicide risk in these vulnerable populations. Accordingly, this study aimed to (1) describe patterns of perceived maternal and paternal acceptance–rejection in socioeconomically disadvantaged adolescents who had recently survived a medically serious suicide attempt; (2) examine how these parental relationship dimensions were associated with psychopathology, and non-suicidal self-injury (NSSI); and (3) explore whether these associations differed by gender. Through this, we sought to deepen understanding of how parent–child relationship patterns contribute to suicidality in high-risk youth.

Materials and Methods

The study was conducted between June 2021 and December 2021. Written informed consent was obtained from parents and assent from all adolescents prior to participation.

Participants and recruitment

The final sample consisted of 46 adolescents (38 girls, 82.6%; 8 boys, 17.4%), with a mean age of 15.7±1.15. Participants were recruited from low- to middle-income households, classified using the Hollingshead-Redlich Socioeconomic Status Scale (16,17). All participants were admitted to the intensive care unit (ICU) following a medically serious suicide attempt, defined as an overdose or ingestion of a toxic substance.

Fifty-nine adolescents were screened; 13 were excluded due to insufficient contact with a non-custodial parent (n = 6), early parental loss (n = 3), or a history of severe psychological trauma (n = 4).

Inclusion criteria were belonging to a low- or middle-income household, clinically assessed intelligence, and living with both biological parents or maintaining regular contact with the non-custodial parent. Exclusion criteria included chronic medical illness, intellectual disability, autism spectrum disorder, psychotic or bipolar disorders, and documented severe trauma histories.

Measures

Socioeconomic status (SES): The Hollingshead-Redlich Scale, was used to calculate a composite index of SES based on parental occupational status and educational attainment (16,17).

Emotional and behavioral problems: The Youth Self-Report (YSR) assessed internalizing and externalizing problems (18). T-scores (M = 50±10) were used in analyses. The Turkish version of the YSR has shown good reliability and validity (19).

Perceived parental acceptance-rejection: The Parental Acceptance-Rejection/Control Questionnaire (PARQ) measured adolescents' perceptions of maternal and paternal warmth, hostility, indifference/neglect, and rejection (20). The Turkish adaptation has demonstrated good internal consistency (21).

Suicidality assessment: The Columbia Suicide Severity Rating Scale (C-SSRS) is a semi-structured interview used to assess the severity and intensity of SI, and NSSI (22). The Turkish version has also shown strong psychometric properties (23).

Procedure

Assessments took place within 48 hours of ICU discharge. A trained clinician administered the C-SSRS, followed by self-administered YSR and PARQ questionnaires completed under supervision. Demographic and clinical data were obtained from medical records and participant report. All adolescents were scheduled for psychiatric follow-up, and those identified as acutely at risk were referred for immediate inpatient evaluation.

Statistical analysis

All statistical analysis were performed using IBM Statistical Package for the Social Sciences, version 24.0 (SPSS Inc., Armonk, NY, IBM Corp., USA). Descriptive statistics were calculated for all variables. Normality was examined through the Shapiro–Wilk test and visual inspection. Group differences were evaluated using independent-samples t-tests. Fisher's exact test was used for categorical variables. Pearson's or Spearman's correlations were conducted to examine bivariate associations.

To address primary research questions:

Hierarchical multiple regression predicted suicidal ideation intensity from parental acceptance–rejection subscales, adjusting for age and gender. Binary logistic regression identified predictors of lifetime NSSI and multiple suicide attempts.

Model fit indices and 95% confidence intervals were reported. All statistical tests were two-tailed, and the alpha level for statistical significance was set at $p<0.050$.

Results

Sample characteristics

Regarding socioeconomic status, 21.7% (n=10) of participants belonged to middle-income families (Hollingshead-Redlich Class III), while the majority, 78.3% (n=36), originated from low-income households (Classes IV and V). The mean educational

attainment was 6.5±3.1 for mothers and 8.3±3.0 years for fathers.

Psychiatric history and substance use behaviors

A significant proportion of the sample reported a history of psychiatric morbidity and risk behaviors. A majority (82.6%, n=38) had a history of prior psychiatric consultation. Nearly half of the adolescents reported current tobacco use (47.8%, n=22), one-third reported alcohol consumption (32.6%, n=15), and a smaller portion reported other substance use (8.7%, n=4). In terms of suicidality, 73.9% (n=34) had a history of one or more previous suicide attempts, and 80.4% (n=37) had engaged in NSSI at least once in their lifetime (see Table I for detailed statistics).

Gender differences

A significant gender difference was observed for NSSI (Fisher's Exact Test, p=0.030), with girls reporting a higher lifetime prevalence (86.8%) than boys (50.0%). No other significant gender differences were found for previous attempts, psychiatric history, perceived maternal or paternal acceptance, SI severity or intensity, or internalizing and externalizing problems (Table I).

Comparison of single-attempt versus multiple-attempt groups

Adolescents with multiple attempts (n=34) had significantly higher SI severity and intensity than those with a single attempt (n=12; p = 0.002 and p = 0.004, respectively Table II). Although mean perceived maternal acceptance scores (higher scores indicate greater rejection) were numerically higher in the multiple-attempt group, this difference did not reach statistical significance (t(44) = -1.84, p=0.073). No significant group differences were observed for perceived paternal acceptance or internalizing and externalizing problems (p = 0.687, p = 0.153, and p = 0.183, respectively).

Correlates of suicidal ideation

Bivariate correlations were performed to examine the relationships between key variables. SI severity was significantly and positively correlated with a history of suicide attempts (r(44)=0.395, p=0.007, 95% CI [0.11, 0.62]) and with preparatory acts for suicide (r(44)=0.752, p<0.001, 95% CI [0.60, 0.85]). Furthermore, SI intensity showed strong positive correlations with maternal subscales indicative of greater perceived rejection: Warmth/Affection (higher scores reflect less warmth; r(44)=0.605, p<0.001, 95% CI [0.38, 0.76]), Indifference/Neglect (r(44) = 0.631, p<0.001, 95% CI [0.42, 0.78]), and Undifferentiated Rejection (r(44)=0.579, p < 0.001, 95% CI [0.35, 0.75]). SI intensity was also correlated with a history of previous attempts (r(44)=0.436, p=0.002, 95% CI [0.16, 0.65]). In contrast, no significant associations emerged between SI severity or intensity and any paternal acceptance scores.

Maternal acceptance-rejection and psychological correlates

Higher total maternal rejection was significantly associated with several YSR subscales, including withdrawn/depressed problems (r(44 =0.405, p=0.006, 95% CI [0.12, 0.63]), thought problems (r(44)=0.391, p=0.008, 95% CI [.10, .61]), total internalizing problems (r(44)=0.351, p=0.018, 95% CI [0.06, 0.59]), affective problems (r(44) =0.311, p=0.037, 95% CI [0.01, 0.56]), and post-traumatic stress problems (r(44)=0.298, p= 0.047, 95% CI [0.00, 0.55]).

Among the maternal acceptance subscales, reduced Warmth/ Affection showed the strongest correlation with withdrawn/ depressed problems (r(44)=0.454, p=0.002, 95% CI [0.19, 0.66]), while the Indifference/Neglect was positively correlated with both post-traumatic stress disorder (PTSD)-related problems (r(44)=0.394, p=0.007, 95% CI [0.11, 0.62]) and oppositional defiant behavior (r(44)= 0.341, p =0.022, 95% CI [0.05, 0.58]).

Table I: Clinical and psychosocial characteristics

Variables	Full Sample	Girls	Boys	p
Total number of patients	46	38	8	-
Clinical History*				
Prior psychiatric consultation*	38 (82.6)	31 (81.6)	7 (87.5)	0.570
History of multiple suicide attempts*	34 (73.9)	29 (76.3)	5 (62.5)	0.410
Lifetime non-suicidal self-injury (NSSI)*	37 (80.4)	33 (86.8)	4 (50.0)	0.030
Parental Rejection (PARQ)†				
Perceived Maternal Rejection (Total)	151.7±49.9	156±48	131.7±56.6	0.216
Perceived Paternal Rejection (Total)	151.3±50.4	155.2±49.6	134.8±53.6	0.309
Suicidality (C-SSRS) †				
SI Severity (0-5)	4.4±0.6	4.5±0.5	4.0±1.0	0.174
SI Intensity (5-25)	17.3±2.8	17.5±2.7	16.1±3.1	0.201
Psychopathology (YSR) †				
Internalizing Problems (T-Score)	75.0±9.1	75.2±9.3	74.0±8.7	0.733
Externalizing Problems (T-Score)	64.1±10.9	63.8±11.7	65.2±6.3	0.754
Withdrawn/Depressed (T-Score)	77.9±11.3	79.0±10.9	72.8±12.4	0.168

:** *n(%) (Fisher's Exact Test),* **†:** *mean±SD (Student T test),* ***C-SSRS: *Columbia-Suicide Severity Rating Scale,* ***PARQ:*** *Parental Acceptance-Rejection/Control Questionnaire,* ***YSR:*** *Youth Self-Report*

Table II: Comparison of adolescents with a single suicide attempt versus multiple suicide attempts

Variables	Single-attempt	Multiple-attempt	t	df	p	Cohen's d
Total number of patients	12	34	-	-	-	-
SI severity	4.0±0.8	4.65±0.4	-3.22	44	0.002†	1.25
SI intensity	15.3±2.8	18.0±2.5	-3.03	44	0.004†	1.02
Maternal rejection	128.2±54.3	159.2±46.7	-1.84	44	0.073	0.63
Paternal rejection	156.4±52.3	149.3±50.3	0.41	44	0.687	0.14
Internalizing prob.	72.6±7.8	76.6±9.8	-1.46	44	0.153	0.44
Externalizing prob.	62.5±11.5	65.2±10.5	-1.35	44	0.183	0.24

***:** *mean±SD,* **†:** *Student's T-Test*

Table III: Summary of binary logistic regression analysis predicting lifetime non-suicidal self-injury (NSSI)

Predictors	B	SE	Wald	p	OR	Lower*	Upper*
Conduct Problems	0.118	0.057	4.234		0.040	1.125	1.006
Total Competence	-0.085	0.048	3.098		0.078	0.919	0.836

:** *95% CI,* ***Omnibus Test of Model Coefficients: *$\chi^2(2)=8.52$, p=0.014,* ***Nagelkerke R^2*** *= 0.283,* ***Hosmer-Lemeshow test:*** *p=0.599,* ***CI:*** *confidence interval,* ***OR:*** *odds ratio,* ***B:*** *unstandardized regression coefficient,* ***SE:*** *standard error.*

Table IV: Summary of binary logistic regression analysis predicting multiple suicide attempts

Predictors	B	SE	Wald	p	OR	Lower*	Upper*
SI Intensity	0.444		0.184	5.844	0.016	1.559	1.088
Attention Problems	0.080		0.042	3.597	0.058	1.083	0.997

:** *95% CI,* ***Omnibus Test of Model Coefficients: $\chi^2(2)$ *= 13.06, p = 0.001,* ***Nagelkerke R^2*** *=0 .376,* ***Hosmer-Lemeshow test:*** *p = 0.103*

Table V: Summary of multiple linear regression analysis predicting suicidal ideation intensity

Predictors	B	SE	β	t	p	VIF
(Constant)	14.962	1.583		9.452**	<0.001	
Maternal Indifference/Neglect	0.128	0.027	0.556	4.727**	<0.001	1.085
Previous Suicide History	1.784	0.780	0.780	2.287*	0.027	1.085

R^2 *= 0.465,* ***Adjusted R^2*** *=0 .440,* ***$F(2, 42)$*** *= 18.26, p < 0.001,* ***β*** *= standardized regression coefficient,* ***VIF :*** *Variance Inflation Factor*

Paternal acceptance-rejection and psychological correlates

No significant associations were identified between the total paternal acceptance score and any YSR subscales. However, paternal Hostility/Aggression was negatively correlated with age (r(44) = -0.321, p = 0.038, 95% CI [-0.57, -0.02]) and positively associated with rule-breaking behavior (r(44) = 0.343, p = 0.026, 95% CI [0.05, 0.58]), aggressive behavior (r(44) = 0.376, p = 0.014, 95% CI [0.08, 0.60]), total externalizing problems (r(44) = 0.381, p = 0.013, 95% CI [0.09, 0.61]), and conduct problems (r(44) = 0.376, p = 0.014, 95% CI [0.08, 0.60]).

Predictors of NSSI: Binary logistic regression analysis

The logistic regression model predicting lifetime NSSI was statistically significant (Omnibus Test: p=0.014), explaining approximately 28.3% of the variance (Nagelkerke R^2 = 0.283). The Hosmer-Lemeshow test indicated good model fit (p= 0.599). As shown in Table III, conduct problems emerged as a significant predictor; each one-unit increase in the conduct problems score was associated with a 1.13-fold increase in the odds of having engaged in NSSI (Odds Ratio [OR] = 1.125, 95% CI [1.006, 1.259], p=0.040). Total competence showed a non-significant trend towards a protective effect (p=0.078).

Predictors of multiple suicide attempts: Binary logistic regression analysis

A second logistic regression model predicting a history of multiple suicide attempts (vs. a single attempt) was also significant (Omnibus Test: p=0.001), accounting for 37.6% of the variance (Nagelkerke R^2=0.376). The model demonstrated acceptable fit (Hosmer-Lemeshow p=0.103). As detailed in Table IV, SI intensity was a significant predictor, with each one-unit increase in the intensity score associated with a 1.56-fold increase in the odds of belonging to the multiple-attempt group (OR =1.559, 95% CI [1.088, 2.235], p=0.016). Attention problems showed a trend toward significance (p= 0.058).

Predictors of SI intensity: Multiple linear regression analysis

The multiple linear regression model significantly predicted SI intensity, F(2, 42)=18.26, p<0.001, and accounted for

44.0% of the variance in SI intensity (Adjusted R^2=0.440). Two predictors were significant in the final model (Table V). Perceived maternal Indifference/Neglect was a strong positive predictor of SI intensity (B =0.128, SE=0.027, β =0.556, t(42) = 4.73, p<0.001). Additionally, a history of previous suicide attempts also significantly predicted higher SI intensity (B =1.784, SE=0.780, t(42)=2.29, p=0.027). These results indicate that higher perceived maternal indifference and a personal history of attempts are substantial contributors to the intensity of current suicidal ideation.

Discussion

The findings of this study provide a nuanced perspective on the interplay between familial factors, psychopathology, and suicidal behaviors among socioeconomically disadvantaged adolescents who have survived a medically serious suicide attempt. Our results particularly underscore the distinct roles of maternal and paternal relationships, highlight key correlates of NSSI and repeated suicide attempts, and offer insights into potential gender-specific expressions of distress.

A key finding of this study is how the mother–child relationship relates to adolescent outcomes. Echoing prior research, higher levels of perceived maternal rejection were robustly associated with greater SI intensity (24). More specifically, diminished maternal warmth was primarily related to internalizing symptoms such as depression, whereas maternal indifference and neglect were more strongly correlated with post-traumatic stress and oppositional behaviors. These results align with developmental literature suggesting that affectionate maternal relationships buffer against internalizing distress, whereas neglect is linked to more pervasive psychopathology (25-27). In socioeconomically disadvantaged contexts, where mothers often function as the main source of emotional support, maternal rejection may deprive adolescents of the essential emotional scaffolding required for adaptive coping and affect regulation, thereby further amplifying suicidal ideation (28,29).

By contrast, paternal acceptance showed no significant association with suicidal ideation in our sample. This finding diverge from several studies reporting that reduced paternal warmth and increased rejection predict greater suicidal thoughts in other cultural contexts (30,31). This discrepancy may reflect the specific sociocultural and economic context of our Turkish, low-income cohort, in which fathers traditionally assume primarily financial and disciplinary roles. In line with this interpretation, paternal acceptance was also unrelated to internalizing symptoms, despite broader literature suggesting that low paternal acceptance is typically linked to internalizing and externalizing problems (32). Notably, however, paternal hostility and aggression were significantly associated with rule-breaking and aggression in our sample, consistent with evidence that authoritarian or hostile fathering contributes to conduct problems (33). The stronger association of paternal hostility with difficulties in younger adolescents likely reflects normative patterns of stricter paternal control in early and mid-adolescence, suggesting that, negative paternal interactions may be more likely to manifest as outward behavioral dysregulation than as internalizing distress (34).

Regarding gender, girls in our study reported significantly higher rates of NSSI than boys, echoing broader international evidence that adolescent girls are more likely to engage in self-injurious behaviors (35). However, gender did not emerge as a significant factor in relation to SI severity or intensity, parental relationships, or internalizing and externalizing symptoms. This pattern suggests that while gender may shape the form through which distress is expressed (e.g., NSSI), the quality of parental relationships may represent a shared correlate of psychopathology for both girls and boys in this high-risk group (36).

Our regression analyses identified specific psychological correlates of risk behaviors. Conduct problems were the only significant predictor of lifetime NSSI, supporting models that view both NSSI and disruptive behaviors as expressions of shared vulnerabilities such as impulsivity and emotion dysregulation (37,38). Although the trend-level protective role of total competence did not reach statistical significance, it suggests that strengthening academic and social functioning might help buffer against engagement in NSSI (39).

In line with “ideation-to-action” framework, our data were in line with a high-risk trajectory (40). A history of prior attempts predicted greater current SI intensity, which, in turn, significantly increased the odds of multiple suicide attempts. The distinction between single and multiple attempters was substantial, with large effect sizes for SI severity and intensity. These differences are likely to be important for how clinicians assess risk in similar settings. The trend-level association between attention problems and repeat attempts may point to underlying neurocognitive vulnerabilities, such as impulsivity and executive dysfunction, although this requires confirmation in studies with direct cognitive assessment.

Clinically, these findings underscore the importance of routinely assessing adolescents’ perceptions of both maternal and paternal behavior following a medically serious suicide attempt. Particular attention may be warranted to maternal emotional rejection and reduced warmth in adolescents presenting with severe SI or multiple attempts, and to paternal hostility in those with prominent conduct problems or externalizing problems and NSSI. In family meetings, explicitly addressing these relational patterns and actively engaging both fathers and mothers in emotion-focused and behaviorally oriented interventions may help align parental responses with the adolescent’s needs and reduce escalating self-harm risk.

Limitations

This study has notable strengths. It targeted a clinically homogeneous, high-risk group of socioeconomically disadvantaged adolescents admitted to intensive care following medically serious suicide attempts, thereby enhancing the clinical relevance and contextual specificity of the findings. The use of a semi-structured clinical interview for suicidality alongside standardized measures of psychopathology, together with detailed assessments of both maternal and paternal acceptance–rejection within a narrowly defined cohort, strengthens both the internal validity and the practical applicability of the results for family-focused interventions.

Despite these strengths, several limitations should be considered when interpreting the findings. First, the sample consisted of adolescents from low-income families who had survived a medically serious suicide attempt requiring ICU care. This focus on a highly vulnerable and clinically relevant group restricts generalizability to adolescents with less severe self-harm or from more advantaged backgrounds. Second, we intentionally excluded adolescents with extensive trauma histories to reduce confounding of parent-related factors by trauma-related psychopathology; therefore, the findings may not directly apply to youth whose suicidality is primarily trauma-driven. Third, the predominance of girls in our cohort reflects national patterns in Turkish suicide attempts but reduces statistical power for gender-stratified analyses and warrants caution when extrapolating to boys. Fourth, the cross-sectional design precludes causal inference and does not allow determination of temporal ordering between parental rejection, psychopathology, and suicidal behavior. Finally, all key constructs were assessed via adolescent self-report within 48 hours of ICU discharge, which may have introduced reporting biases due to acute distress; future research should incorporate multi-informant and longitudinal assessments.

Future longitudinal research with larger, cross-cultural samples is needed to clarify which aspects of the associations observed here are context-specific and which may represent more universal pathways. Integrating qualitative methods could also deepen understanding of adolescents' subjective experiences of maternal and paternal roles in the aftermath of suicidal behavior.

Conclusion

In conclusion, this study highlights the central role of perceived maternal relationships in shaping the severity of suicidal ideation and internalizing difficulties among high-risk, low-income adolescents, while paternal rejection appears more specifically linked to externalizing behaviors. These findings support the potential value of family-centered prevention and intervention efforts that strengthen maternal responsiveness and promote positive paternal engagement. More broadly, systematic screening for conduct and attention difficulties in school and community settings, combined with interventions targeting emotion regulation, may help prevent the escalation of self-injurious behaviors in this vulnerable population.

Ethics committee approval

This study was conducted in accordance with the Helsinki Declaration Principles. The study was approved by Aksaray University (03 June 2021, reference number: 05-SBKAEK).

Contribution of the authors

Study conception and design: GIE, MSD; data collection: GIE, MSD; analysis and interpretation of results: GIE; draft manuscript preparation: GIE; supervision: MSD. All authors reviewed the results and approved the final version of the article.

Source of funding

The authors declare the study received no funding.

Conflict of interest

The authors declare that there is no conflict of interest.

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