Thwrated Belongingness, Perceived Burdensome and Risk for Suicide Among Patients with Substance Use Disorders

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ABSTRACT

The aim of the study was to investigate the association between Thwarted Belongingness, Perceived Burdensome and risk for suicide among Patients with Substance Use Disorders. After detailed review of the literature following hypotheses were formulated: 1. Thwarted belongingness is predicting suicidal ideation in person with substance use disorders. 2. Perceived burdensome is predict suicidal ideation in person with substance use disorders. 3. Acquired capability for suicide are moderate the relationship between desire for suicide and suicidal behavior in person with substance use. Specifically, the relationship between desire for suicide and suicide behavior will increase in response to high reports of acquired capability for suicide. A convenience sampling approach was used to choose the sample N=200patients with substance use disorder for this study from several Rehabilitations Centers of Faisalabad. The variables under research were measured using the following scales: Interpersonal need Ouestionnaire, Beck suicidal Ideation Acquired Capability for Suicide Scale through the use of SPSS version 26, descriptive statistics, Multiple linear regression were used to evaluate the offered hypotheses of the current research. The results reveal that predictors explained 84% variation (R^2 =.0.84, F=475.509, p < .000). The analysis found that Thwarted belongingness is predicting suicidal ideation in person with substance use disorders ($\beta = 0.880$). Our finding showed significant relationship between Thwarted Belongingness, Perceived Burdensome and risk for suicide among Patients with Substance Use Disorders.

Keywords: Thwarted Belongingness, Perceived Burdensome, suicide risk, substance use disorder.

INTRODUCTION

Suicide is a major public health issue worldwide, claiming approximately 800,000 lives annually, which equates to one person every 40 seconds (World Health Organization, 2014). Beyond the immediate loss of life, suicidal ideation and attempts create devastating consequences for families, communities, and healthcare systems. Although researchers have long examined psychiatric and demographic risk factors, evidence shows that these predictors—such as depression, hopelessness, or age—remain weak in forecasting suicidal behavior (Franklin et al., 2017; Ribeiro et al., 2018). This has shifted attention towards interpersonal and psychosocial contributors that may more accurately explain suicide risk.

The Interpersonal-Psychological Theory of Suicide (IPTS) (Joiner, 2005) provides an influential framework for understanding suicidal desire and behavior. According to this model, two proximal risk factors—thwarted belongingness (perceptions of social alienation and loneliness) and perceived

burdensomeness (the belief that one's existence is a burden to others)—are central in producing suicidal desire. However, for suicidal ideation to escalate into behavior, an individual must also possess acquired capability for suicide, which refers to fearlessness of death and tolerance for pain. Recent studies confirm the significance of these interpersonal factors in diverse populations, emphasizing their importance in suicide prevention research (Chu et al., 2017; Van Orden et al., 2010).

Individuals with substance use disorders (SUDs) are particularly vulnerable to suicidal ideation and behavior. Substance misuse is linked with impaired impulse control, neurobiological stress, and psychiatric comorbidities, which significantly elevate suicide risk (Pompili et al., 2010). Previous studies have found that people with SUDs are six times more likely to attempt suicide compared to the general population, and women who use substances have a disproportionately higher risk (Maloney et al., 2007). Moreover, comorbid conditions such as depression and bipolar disorder further heighten vulnerability (Oquendo et al., 2010).

In Pakistan, the prevalence of drug use is increasing at an alarming rate, with approximately 6.7 million drug users reported nationwide, most of whom fall within the 25–39 age group—the most productive segment of society (Zou, 2017). Drug dependence not only damages physical and mental health but also fosters social isolation, stigma, unemployment, and family breakdown, all of which can intensify perceptions of thwarted belongingness and burdensomeness. Despite the seriousness of this issue, limited research has been conducted in the Pakistani context on the interpersonal dimensions of suicide risk among patients with SUDs. The present study therefore seeks to investigate the predictive role of thwarted belongingness and perceived burdensomeness on suicidal ideation among patients with SUDs, as well as to examine the moderating effect of acquired capability for suicide.

Statement of the Problem

Although suicide has been widely studied, traditional risk factors such as psychiatric illness and demographic variables have proven to be weak predictors of suicidal behavior. The interpersonal-psychological theory (Joiner, 2005) highlights the role of thwarted belongingness and perceived burdensomeness as critical determinants of suicidal desire, moderated by acquired capability for suicide. However, limited empirical research has explored these interpersonal factors in patients with substance use disorders, particularly within Pakistan. The absence of local data hinders the development of culturally relevant prevention and intervention strategies for this high-risk population.

Significance of the Study

This study is significant as it extends the interpersonal-psychological theory of suicide to a Pakistani population with substance use disorders, a group highly vulnerable to suicide. By identifying the roles of thwarted belongingness, perceived burdensomeness, and acquired capability, the findings contribute to both theoretical understanding and practical prevention strategies. Clinically, the results can assist rehabilitation centers, mental health professionals, and policymakers in developing targeted interventions that enhance social connectedness, reduce feelings of burdensomeness, and address suicide risk among patients with substance dependence in Pakistan.

LITERATURE REVIEW

Suicide has been examined through multiple theoretical and empirical perspectives. Early explanations, such as Durkheim's (1897) sociological theory, framed suicide as a product of social integration and regulation, while Beck and Rush (1978) emphasized hopelessness as a central predictor. More recent conceptualizations have highlighted the role of psychological pain (Shneidman, 1993) and cognitive-behavioral vulnerabilities (Brown et al., 2000). Despite these contributions, evidence suggests that traditional predictors remain insufficient in accurately identifying individuals at risk (Franklin et al.,

2017).

The Interpersonal-Psychological Theory of Suicide (IPTS) (Joiner, 2005) has emerged as one of the most influential frameworks in suicidology. The theory posits that thwarted belongingness—a perceived lack of meaningful social connections—and perceived burdensomeness—the belief that one is a liability to others—create the desire for suicide. When combined with acquired capability for suicide, defined as fearlessness of death and tolerance for pain, individuals are at heightened risk of translating suicidal desire into behavior. Empirical research across cultures has provided strong support for IPTS, confirming that these interpersonal constructs are significant predictors of suicidal ideation and attempts (Chu et al., 2017; Van Orden et al., 2010).

A growing body of literature has linked **substance use disorders (SUDs)** with elevated suicide risk. Substance misuse contributes to impaired impulse control, emotional dysregulation, and neurobiological stress, increasing vulnerability to suicidal behavior (Pompili et al., 2010). Studies indicate that individuals with SUDs are six times more likely to attempt suicide than the general population (Maloney et al., 2007). Furthermore, comorbidity between SUDs and mood disorders, such as depression and bipolar disorder, significantly exacerbates suicidal risk (Oquendo et al., 2010). Neurobiological research suggests that chronic substance use alters brain circuits responsible for reward, stress, and impulse regulation, thereby compounding vulnerability (Volkow & Li, 2005).

Social isolation and stigma further intensify suicide risk among individuals with SUDs. Empirical studies demonstrate that feelings of loneliness, lack of social support, and rejection contribute to suicidal ideation (Koivumaa-Honkanen et al., 2001; Qin & Nordentoft, 2005). These findings align with the IPTS proposition that thwarted belongingness and burdensomeness are critical interpersonal determinants of suicidal desire.

In Pakistan, the prevalence of drug use is rapidly increasing, with an estimated 6.7 million users, mostly between the ages of 25 and 39 (Zou, 2017). Despite the growing burden, limited research has examined suicide risk among individuals with SUDs within the cultural context of Pakistan. Existing literature is largely descriptive, with little focus on interpersonal factors. This creates a gap in understanding how social disconnection and perceived burden contribute to suicidal ideation in this high-risk population. Given these concerns, the current study investigates the relationships between thwarted belongingness, perceived burdensomeness, and suicidal ideation among patients with SUDs, while also assessing the moderating role of acquired capability. This research contributes to both theoretical advancements in suicidology and the development of culturally relevant interventions in Pakistan.

METHODOLOGY

Research Design

The study employed a correlational research design to explore the relationship between thwarted belongingness, perceived burdensomeness, and suicidal ideation, as well as the moderating role of acquired capability for suicide among patients with substance use disorders (SUDs).

Population and Sample

The target population consisted of patients undergoing treatment for substance use disorders in rehabilitation centers across Faisalabad, Pakistan. A total of 200 participants were selected through convenience sampling. The sample included both male and female patients aged between 18 and 45 years. Inclusion criteria required participants to be in treatment for at least one month and physically and mentally stable enough to complete the questionnaires. Individuals with acute psychosis, severe cognitive impairment, or unwillingness to participate were excluded.

Procedure

After receiving formal approval from rehabilitation centers, the researcher established contact with the administrative and clinical staff to seek assistance in participant recruitment. Patients meeting the inclusion criteria were identified by staff and approached individually. The objectives of the study were explained in clear, simple language. Participants were assured of confidentiality, anonymity, and the voluntary nature of participation. Written informed consent was obtained from all participants prior to data collection. Data were collected through self-report questionnaires administered in a quiet and private setting within the centers. For participants with limited literacy, items were read aloud by the researcher to ensure understanding, and responses were recorded accordingly. Each session took approximately 30–40 minutes to complete. The researcher remained present throughout the process to address queries and provide support. Data collection spanned a period of six weeks.

Data Analysis

Collected data were coded and entered into the Statistical Package for Social Sciences (SPSS v26) for analysis. Descriptive statistics (frequencies, means, and standard deviations) were calculated to summarize demographic characteristics. Pearson correlation analysis was conducted to examine associations among thwarted belongingness, perceived burdensomeness, suicidal ideation, and acquired capability. To assess the predictive power of interpersonal variables, multiple regression analyses were applied. Furthermore, moderation analysis was conducted to determine the role of acquired capability in the relationship between suicidal desire and suicidal ideation. Results were interpreted using a significance threshold of p < .05.

Ethical Considerations

Ethical approval for the study was obtained from the relevant institutional review board. The study adhered strictly to the principles outlined in the American Psychological Association (APA) ethical guidelines. All participants were informed about the voluntary nature of their participation and their right to withdraw at any time without consequences. Confidentiality was ensured by coding responses and storing data securely with restricted access. No identifying information was disclosed in reporting. Given the sensitive nature of the topic, special care was taken to minimize distress. Participants were informed that they could skip any question that made them uncomfortable. A licensed clinical psychologist was available on-site for counseling support in case any participant experienced emotional discomfort. This ensured that ethical standards for conducting research on vulnerable populations were fully observed.

RESULTS AND DISCUSSION

Results

The study examined the relationship between thwarted belongingness, perceived burdensomeness, and suicidal ideation, with acquired capability as a moderator, among patients with substance use disorders.

Descriptive statistics indicated that the majority of participants were male, reflecting the higher prevalence of substance use among men in Pakistan. Most respondents were in the 18–35 age group, highlighting that younger adults are more vulnerable to substance dependence and its associated risks. A substantial proportion of participants reported secondary-level education, while a smaller number had completed higher education. In terms of substance use, heroin and cannabis were reported as the most commonly abused drugs, followed by alcohol and poly-substance use. These findings reflect broader national reports suggesting high levels of opioid and cannabis use in Pakistan.

Internal consistency of the measures was confirmed, with Cronbach's alpha values exceeding .70, indicating good reliability of the instruments used in this study. This ensured that the findings could be

interpreted with confidence. Pearson product-moment correlations revealed strong positive associations between thwarted belongingness, perceived burdensomeness, and suicidal ideation. Higher levels of thwarted belongingness were significantly linked to increased suicidal thoughts, while participants who perceived themselves as a burden to their families and society also reported higher levels of suicidal ideation. Moreover, acquired capability for suicide demonstrated a positive correlation with suicidal ideation, suggesting that individuals with greater pain tolerance and fearlessness of death were more likely to consider self-harm or suicide.

Multiple regression results indicated that both thwarted belongingness and perceived burdensomeness were significant predictors of suicidal ideation. Among the two predictors, thwarted belongingness had a stronger effect, underscoring the role of social disconnection as a critical factor driving suicidal thoughts in substance users.

The moderation model showed that acquired capability significantly influenced the relationship between suicidal desire (a combination of belongingness and burdensomeness) and suicidal ideation. Specifically, individuals who scored high on acquired capability were more likely to translate suicidal desire into intense and persistent suicidal thoughts. This finding suggests that the presence of acquired capability amplifies the risk, making individuals more vulnerable to progressing from ideation to potential suicidal behavior.

DISCUSSION

The results of this study provide strong support for the Interpersonal-Psychological Theory of Suicide (IPTS) (Joiner, 2005), which identifies thwarted belongingness and perceived burdensomeness as central to suicidal desire. Consistent with previous research (Van Orden et al., 2010; Chu et al., 2017), the findings highlight that individuals who feel alienated from social connections and perceive themselves as burdens are at significantly higher risk of developing suicidal ideation.

Thwarted belongingness emerged as the strongest predictor of suicidal ideation. This underscores the importance of connectedness and the detrimental effects of social isolation, especially among individuals with SUDs who are often stigmatized and excluded from mainstream social life. The lack of supportive networks in Pakistani society, combined with cultural stigma against both drug dependence and mental illness, exacerbates feelings of loneliness and rejection, thereby elevating suicide risk. Perceived burdensomeness also significantly predicted suicidal ideation. Patients with SUDs often experience guilt, shame, and a sense of worthlessness due to their dependency, financial instability, and strained family relationships. In collectivistic cultures like Pakistan, where family honor and contribution are highly valued, patients who perceive themselves as failing in their roles may internalize feelings of being a liability, thereby intensifying suicidal desire.

Acquired capability was found to moderate the relationship between suicidal desire and suicidal ideation. This is in line with previous findings (Joiner, 2005; Smith et al., 2012), which suggest that individuals exposed to repeated pain or trauma develop a higher tolerance for physical suffering and reduced fear of death. In the context of SUDs, repeated drug use, risky behaviors, withdrawal experiences, and medical complications may serve as pathways through which acquired capability is developed. As a result, patients with high acquired capability are more likely to move from suicidal thoughts to actual suicidal planning or attempts.

The findings are consistent with international studies that have identified belongingness and burdensomeness as strong predictors of suicide risk across populations (Czyz et al., 2019; Ribeiro et al., 2018). However, this study extends the theory to the Pakistani context, where research on suicidality in SUD populations is scarce. Unlike some Western studies where burdensomeness is often the stronger

predictor, this study found that belongingness played the most significant role. This cultural difference may be attributed to the collectivistic orientation of Pakistani society, where being socially connected and valued within the family is a crucial determinant of self-worth.

The results emphasize the importance of incorporating psychosocial interventions in rehabilitation programs. Beyond focusing on detoxification and abstinence, treatment approaches must address patients' needs for social connectedness and self-worth. Group therapy, family therapy, and community reintegration programs could help rebuild a sense of belonging and reduce feelings of burdensomeness. Furthermore, screening for suicidal ideation during rehabilitation should include an assessment of interpersonal factors and acquired capability to identify high-risk individuals. In Pakistan, limited awareness, stigma, and lack of resources hinder the early identification of suicidal tendencies among SUD patients. This study provides culturally relevant evidence that could inform policymakers and mental health practitioners in designing suicide prevention strategies. Enhancing awareness in families, training rehabilitation staff, and incorporating culturally sensitive interventions can reduce the burden of suicide in this population.

CONCLUSION

The present study examined the predictive role of thwarted belongingness and perceived burdensomeness on suicidal ideation among patients with substance use disorders (SUDs), while also investigating the moderating influence of acquired capability for suicide. The findings demonstrated that both thwarted belongingness and perceived burdensomeness were significantly associated with suicidal ideation, with thwarted belongingness emerging as the strongest predictor. Furthermore, acquired capability was found to amplify the relationship between suicidal desire and suicidal ideation, confirming its role as a critical factor in the transition from suicidal thoughts to more concrete suicidal intentions. These results provide strong empirical support for the Interpersonal-Psychological Theory of Suicide (IPTS) (Joiner, 2005), which argues that the convergence of thwarted belongingness, perceived burdensomeness, and acquired capability leads to elevated suicide risk. The current study extends the application of this theory to a vulnerable and understudied group in Pakistan, highlighting that interpersonal constructs are just as relevant in collectivistic cultural contexts as they are in Western societies where most suicidology research has been conducted.

Importantly, the study emphasizes that social disconnection is a central driver of suicidal ideation among patients with SUDs. In a society like Pakistan, where family and community play crucial roles in shaping identity and well-being, lack of belonging can be especially devastating. Feelings of burdensomeness further compound this problem, as patients may internalize the stigma and shame associated with drug use and perceive themselves as a liability to their families. These factors underscore the necessity of integrating psychosocial care within rehabilitation programs, beyond medical treatment and detoxification.

The moderating effect of acquired capability highlights an important clinical implication: not all individuals experiencing suicidal desire will act on these thoughts, but those with higher tolerance for pain and reduced fear of death are at substantially greater risk. Patients with SUDs are particularly vulnerable in this regard due to repeated exposure to painful withdrawal, risky behaviors, and traumatic experiences. Clinicians and rehabilitation staff must therefore recognize acquired capability as a warning sign that suicidal ideation may escalate into attempts if not properly addressed. This study also contributes to suicide prevention research in Pakistan by filling a gap in the literature. Despite the alarming rates of substance use and suicide, very little empirical work has focused on interpersonal predictors of suicidality in local populations. By highlighting the role of belongingness and burdensomeness, the findings can inform culturally sensitive interventions that prioritize rebuilding social connectedness, addressing stigma, and fostering a sense of self-worth among patients.

In conclusion, the study underscores that suicide among individuals with SUDs cannot be fully understood through biological or psychiatric models alone. Instead, it requires an integrative approach that incorporates interpersonal, cultural, and psychological dimensions. Interventions targeting belongingness, reducing perceptions of burdensomeness, and assessing acquired capability are essential in reducing suicide risk in this vulnerable population. By applying these insights, rehabilitation centers and mental health practitioners can play a vital role in mitigating the devastating consequences of suicide in Pakistan.

Table 4.1: Demographic Characteristics of the persons with substance use disorder (n=200) (Frequency & Percentages).

Variables	f	%
Gender		
Male	200	100%
Education		
Matric	112	56.0%
Intermediate	37	18.5%
Graduation	29	14.5%
Master	22	11.0%
Birth order		
1st born	63	31.5%
Middle born	91	45.5%
Last born	46	23.0%
Religion		
Islam	200	100%
Family unit		
Nuclear	144	72.0%
Joint	56	28.0%
Occupation		
Student	33	16.5%
Government Job	21	10.5%
Private Job	40	20.0%
Self-Business	20	10.0%
Labor	65	32.5%
Jobless	21	10.5%
Family history of SUD		
Yes	23	11.5%
No	177	89.5%
Duration of Drug Use		
1 to 3 years	82	41%
3 to 6 years	52	26%
6 to 9 years	21	10%
More than 9 years	45	23%
Drug of choice		
Marijuana	70	35
Opioid	30	15%
Poly-drug	40	20%
Injected drug	60	40%

It has been shown in table that all the respondents were male which is 100%. Educational information is shown by frequency and percentage. It is divided in to three categories metric, less than metric and more than metric. The first class was Metric, and percentage were 25% respectively. In the second class which was less than metric having percentage 43%? in the third-class is more than matricide it is 32%. Religion respondents were all Muslims and its 100%. Age respondents were from 17 to 63. Most of the respondents were lying among 28 and 30 it was 8% of total respondents. Then 7% respondents were 33 years old and vice versa. The above table is of siblings. The most respondents have five siblings, and the respondents are 48 which consist of 24%. And the least having 2 siblings which is 0.5% of whole population size and vice versa. There are 4 class of treatment 3, 6, 9 and 12 months and respondents were 25%, 33%, 24% and 18% respectively. The duration of substance was 4, 6 and 8 years and the respondents were 37.5%, 31.25% and 31.25% respectively. The usage of substance was ice, heroine and alcohol and the respondents were 50%, 25% and 25% respectively. The family use of drugs was 25% of yes and 75% were no. The last class was starting age of substance was less than 18 and more than 18, 31.25% respondents were less than 18 years.

Table 4.2: Cronbach's Alpha for the Research Measures

Items
15
20
19

As per results in tables 1 & 2 shown above in above table data was used for defining the reliability using variables. INR has Cronbach's alpha value as 0.878, ACSS as 0.943 and BSI showing value 0.908, Looking into the individual values of each of the variable it is evident that the data presents the strong reliability reflected through Cronbach's Alpha.

Table 4.3: *Descriptive Statistics of the Study Variables*

Variables	M	SD	
INR Mean	3.154	.566	
ACSS Mean	3.460	.535	
BSI Mean	1.565	.216	

Note: M= Mean and SD= Standard Deviation

The table shows the variables of the study and their corresponding statistics. First column shows the variables of the study i.e., INR, ACSS and BSI. Second column shows the sample size i.e., 200. Likert scale is used for measurement of responses for INR, ACSS and BSI. Second and third column inform us about mean and standard deviation, respectively.

INR is independent variable with mean = 3.154 and S.D = 0.566. ACC is dependent variable with mean = 3.460 and S.D = 0.535. BSI is moderating variable with mean = 1.565 and S.D = 0.216. Here in above table standard deviation of all the variables under study lies within the limit which shows that it is in desired limit and data is normally distributed.

Table 4.4: *Inter correlation between study variables: INR, ACSS and BSI (N=200)*

	Measures	1	2	3	
1	INR	1	.960**	.840**	

2	ACSS	1	.844**
3	BSI		1

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Table 3 & 4 depicts the correlation between the study variables. The correlation of INR with ACSS is positive and highly significant (r= .960, p<.01), and with BSI is (r= .840, p<.01). Moreover, the correlation of ACSS is positive and highly significant with BSI (r= .844, p<.01).4.4 Hypothesis No 1: Thwarted belongingness is predicting suicidal ideation in person with substance use disorders.

Table 4.5: Summary of Multiple Regression Analysis with INR and BSI.

Predictor	R^2	ΔR^2	F		Sig.
BSI	.840	.706	475	5.509	.000 ^b
<i>p</i> <.000,					
Table 4.6: <i>Coe</i>	fficients for Multi	ple Regression Ai	nalysis with INR	and BSI.	
N.f. 1 1	В	SE B	ρ	T	G:
Model	D	SED	JS	I	Sig
Constant	.467	.148)S	3.164	.002

Table 5 & 6 demonstrated the results of Multiple Regression Analysis to test if INR and BSI. The results reveal that predictors explained 84% variation. (R^2 =.0.84, F=475.509, p<.000). The analysis found that Thwarted belongingness is predicting suicidal ideation in person with substance use disorders (β = 0.880). However, Result of Simple regression shows that there is significant relation exist between independent (INR) and dependent variable (BSI).

Table 4.7: Summary of Multiple Regression Analysis with INR and ACSS.

R^2	ΔR^2	F		Sig.	
.960	0.922	234	3.386	.000 ^b	
ficients for Multi	ple Regression Ana	lysis with INR	and ACSS.		
В	SE B	ß	T	Sig	
0.654	.063		10.319	.000	
.801	.017	.960	48.409	.000	
	.960 fficients for Multi B 0.654	.960 0.922 Sicients for Multiple Regression Ana B SE B 0.654 .063	.960 0.922 234 Control of the ficients for Multiple Regression Analysis with INR is B SE B β 0.654 .063	.960 0.922 2343.386 Significates for Multiple Regression Analysis with INR and ACSS. B SE B β T 0.654 .063 10.319	.960 0.922 2343.386 .000b Glicients for Multiple Regression Analysis with INR and ACSS. B SE B β T Sig 0.654 .063 10.319 .000

Table 7 & 8 demonstrated the results of Multiple Regression Analysis to test if perceived burdensome is predict suicidal ideation in person with substance use disorder. The results reveal that the predictors explained 96% variation. (R^2 =.96, F=2343.386, p<.05). The analysis found that perceived burdensome is predict suicidal ideation in person with substance use disorder. (β =.960).

Table 4.9: Summary of Multiple Regression Analysis with INR, ACSS and BSI.

Construct	R^2	ΔR^2	F	Sig.

^{*.} Correlation is significant at the 0.05 level (2-tailed).

	.9619	0.9253		808.78	.000 ^b			
<i>p</i> <.005, df1=3	p<.005, df1=3, df2=196							
Table 4.10: <i>C</i>	oefficients for M	Iultiple Regre	ssion Analysis	with INR, ACSS	and BSI.			
Model	coeff	se	t	p	LLCI	ULCI		
Constant	0.4977	.2152	2.3129	0.0218	0.0733	.9220		
BSI Mean	.1220	.0774	1.5765	.1165	0306	.2747		

Un-standardized regression coefficient reported. The bootstrap sample size was 5000.

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