

INFLUENCE OF FATHER SUPPORT FOR EARLY BREASTFEEDING INITIATION AMONG CESAREAN MOTHERS IN LOWER-MIDDLE-INCOME COUNTRIES : A LITERATURE REVIEW

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ABSTRAK

Di negara berpendapatan menengah ke bawah (LMIC), keberhasilan inisiasi menyusui dini (IMD) pada ibu pasca-sectio masih rendah; dukungan ayah jarang diposisikan sebagai komponen layanan, padahal dapat menutup keterbatasan akibat anestesi, nyeri, dan pemisahan ibu–bayi. Tinjauan pustaka ini menelusuri basis data PubMed, Scopus, ScienceDirect, Google Scholar, serta Garuda dan SINTA (Juni–Juli 2025), inklusi studi eksperimental/kuasi-eksperimental di LMIC yang melibatkan ibu pasca-sectio dan melaporkan IMD/eksklusivitas/durasi menyusui; uji mutu RCT menggunakan kriteria JBI; sintesis naratif dilakukan karena heterogenitas desain, populasi, dan bentuk intervensi. Sepuluh studi dari Indonesia, Vietnam, Iran, Turki, Brasil, Tiongkok, dan Nigeria menunjukkan intervensi berfokus ayah hingga kelas antenatal, booklet, modul multimedia, kunjungan rumah, dan konseling postpartum secara konsisten meningkatkan IMD dan ASI eksklusif. Contoh: di Vietnam, IMD meningkat 39,6%→81,2%; di Iran, ASI eksklusif 6 bulan 94% vs 76%; di Tiongkok, pendidikan ayah meningkatkan IMD. Efek paling nyata pada konteks sectio melalui dukungan emosional/logistik, fasilitasi skin-to-skin, dan penguatan efikasi diri ibu; pengetahuan serta sikap ayah turut membaik. Keterbatasan umum meliputi blinding yang jarang, pelaporan attrition tidak lengkap, dan luaran >6 bulan yang minim. Dukungan ayah merupakan determinan penting keberhasilan IMD pada ibu pasca-sectio di LMIC. Program yang terstruktur, berulang, dan sensitif budaya perlu diintegrasikan ke protokol antenatal–postnatal, disertai RCT yang spesifik sectio dan memasukkan ukuran psikososial untuk mengoptimalkan dampak.

Kata kunci : *cesarean section, early breastfeeding initiation, father involvement, LMIC, paternal support*

ABSTRACT

In lower-middle-income countries (LMICs), early breastfeeding initiation (EBI) among post-cesarean mothers remains suboptimal; fathers are seldom integrated into care despite their capacity to offset anesthesia effects, pain, and mother–infant separation. This review searched PubMed, Scopus, ScienceDirect, Google Scholar, and two national platforms (Garuda, SINTA) in June–July 2025; included experimental/quasi-experimental studies conducted in LMICs with post-cesarean populations reporting EBI/exclusivity/duration; appraised RCT quality using JBI; and applied narrative synthesis due to heterogeneity in designs, populations, and interventions. Ten studies from Indonesia, Vietnam, Iran, Turkey, Brazil, China, and Nigeria found father-focused interventions, antenatal classes, booklets, multimedia modules, home visits, and postpartum counseling consistently increased EBI and exclusive breastfeeding. Illustratively, EBI rose from 39.6% to 81.2% in Vietnam; six-month exclusivity reached 94% versus 76% in Iran; in China, father education improved EBI. Effects were most pronounced after cesarean through emotional/logistical support, facilitation of skin-to-skin contact, and reinforcement of maternal self-efficacy; paternal knowledge and attitudes also improved. Common limitations included scarce blinding, incomplete attrition reporting, and few outcomes beyond six months. Paternal support is a critical determinant of successful EBI among post-cesarean mothers in LMICs. Structured, repeated, and culturally sensitive programs should be embedded within antenatal and postnatal protocols, alongside cesarean-specific RCTs incorporating psychosocial measures to maximize impact.

Keywords : *father involvement, early breastfeeding initiation, cesarean section, LMIC, paternal support*

INTRODUCTION

Breastfeeding Initiation (EBI) in the first hour after birth has become one of the main recommendations of the World Health Organization (WHO) in the global strategy of infant and child feeding (WHO, 2009). IMD has been shown to reduce the risk of neonatal mortality by 22% (Debes et al., 2013) and provides early protection against infectious diseases as well as promotes emotional bonding between mother and baby. However, the coverage of IMD globally, particularly in *Lower-Middle-Income Countries (LMICs)*, is still far from optimal, especially in mothers who have undergone cesarean delivery (Betrán et al., 2016). Post-section caesarea *mothers* are a very vulnerable group to fail IMD. Studies from (Sharma et al., 2020) show that the chance of success of IMD in mothers who undergo cesarean section is 42% lower than normal delivery. These obstacles are caused by the effects of anesthesia, delays in skin contact, post-operative pain, and limited physical mobility of the mother. In this context, social support from the partner, especially paternal support, is a key element that can bridge the mother's physiological limitations in conducting IMD.

Various studies confirm that Father Support has a significant impact on breastfeeding behavior, including IMD. This support includes emotional, logistical, physical, and information assistance. An experimental study by (Su & Ouyang, 2016) in China showed that educational interventions to fathers significantly improved IMD implementation ($p < 0.05$). Similarly, (Bich et al.'s., 2016) research in Vietnam noted that fathers' involvement in breastfeeding counseling programs succeeded in increasing the IMD rate from 39.6% to 81.2%. Research by (Raeisi et al., 2014) in Iran also showed that father-based breastfeeding education has a positive impact on long-term breastfeeding practices. Most breastfeeding education interventions still target mothers as the main actors, even though breastfeeding decisions are heavily influenced by perception, knowledge, and partner support. A systematic review by (Tadesse et al., 2018) showed that interventions targeting fathers directly in LMIC countries had a greater positive effect on breastfeeding initiation, exclusivity, and sustainability of breastfeeding, than support from professionals. However, to date, no literature review has been found that explicitly and systematically examines the influence of paternal support on IMD specifically in mothers undergoing cesarean delivery in LMIC countries.

Data from UNICEF (2022) notes that more than 60% of global cesarean births occur in LMIC countries, with Indonesia, India, and Nigeria as the main contributors. The lack of involvement of fathers in the postnatal service system, low breastfeeding literacy among men, and the still strong traditional gender norms exacerbate this situation. In the disciplines of community medicine and family health promotion, the integration of a family-centered approach is very important. This study aims to provide a strong and evidence-based scientific foundation on the influence of paternal involvement on the success of early breastfeeding initiation in postpartum mothers by cesarean section, with a focus on LMIC countries. In addition, this literature will review the forms of educational interventions that have been implemented and evaluate their effectiveness, so as to provide strategic input in the development of prenatal and postnatal education programs that are more inclusive of the role of fathers.

Thus, the main objective of this literature review is to analyze and synthesize the scientific evidence regarding the influence of paternal support on the success of early breastfeeding initiation in mothers undergoing cesarean delivery in lower-middle-income countries, as well as to identify the most effective forms of intervention and innovation opportunities to increase paternal involvement in breastfeeding practices.

METHOD

The literature review was conducted to explore empirical evidence on the effect of paternal support on the success of early breastfeeding initiation (EBI) in mothers undergoing cesarean delivery in lower-middle-income countries (LMICs). The literature search process will be carried out in June-July 2025 through electronic databases: PubMed, Scopus, ScienceDirect, Google Scholar, as well as two accredited national platforms, namely Garuda and SINTA. In addition, manual searches are carried out through the study of the bibliography of relevant articles that have been obtained. Mendeley's reference management software is used to store, manage, and delete duplicate articles. Keywords used in searches include: *"father support" OR "paternal support" AND "early breastfeeding initiation" OR "initiation of breastfeeding" AND "cesarean section" OR "post-caesarean" AND "LMIC" OR "low-middle-income countries"*.

Eligibility Criteria and Data Synthesis

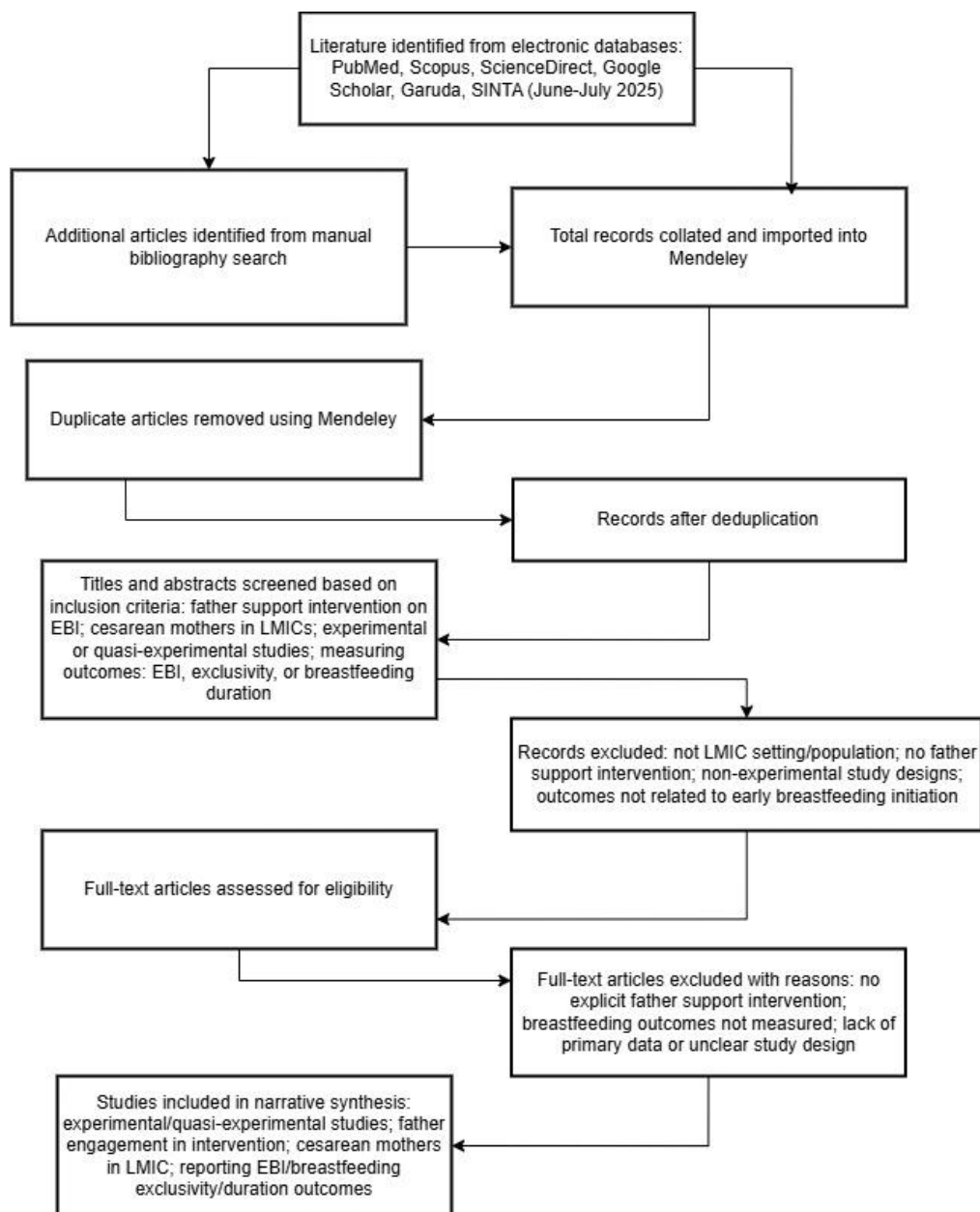


Figure 1. Eligibility Criteria On The Influence Of Father Support For Early Breastfeeding Initiation Among Cesarean Mothers In Lower-Middle-Income Countries

This article reviews the literature that meets certain criteria, namely studies that use experimental or quasi-experimental designs, explicitly evaluate paternal support for breastfeeding practices, conducted in countries classified as LMICs based on the World Bank classification (2024), and specifically involve mothers undergoing cesarean delivery. These studies must measure at least one key indicator of breastfeeding success, namely IMD, exclusivity, or duration of breastfeeding. In contrast, qualitative studies without interventions, narrative reviews without primary data, articles that did not explicitly mention the design of the study, as well as studies that did not include the role of fathers directly in breastfeeding interventions, were excluded from this review. Given the diverse design, population, and form of intervention applied in the studies studied, data analysis was conducted in a narrative-descriptive manner without meta-analysis. This approach allows for the identification of common patterns of paternal involvement in supporting early breastfeeding practices, evaluating its effectiveness specifically in post-caesarean mothers, and considering the unique socio-cultural contexts that color the implementation of such interventions in LMIC countries.

RESULT

The included studies were conducted across multiple LMIC regions, including Indonesia, Vietnam, Iran, Turkey, Brazil, China, and Nigeria, with a focused investigation on the role of father support in improving early breastfeeding initiation (IMD) among post-caesarean mothers. Five of the reviewed studies explicitly involved cesarean-delivered mothers, and the remaining provided substantial insights applicable to such contexts.

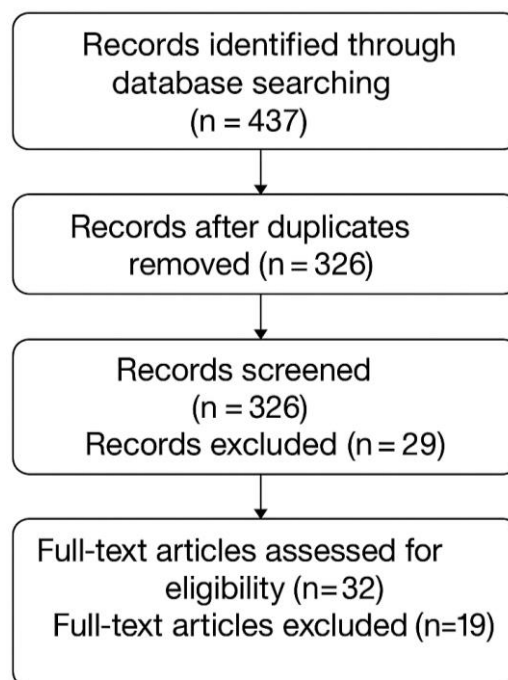


Figure 2. Review selection of studies on Influence of Father Support for Early Breastfeeding Initiation among Cesarean Mothers in Lower-Middle-Income Countries

Studies included in review (n=10)

Intervention Delivery

Father-focused interventions were delivered through various modes: direct face-to-face antenatal classes, printed educational booklets, multimedia modules, home-based counseling, and postpartum engagement strategies. Notably, studies such as (Bich et al., 2016) and (Bich & Cuong, 2017) implemented integrated home-visit models that reached fathers in their domestic setting, allowing for

personalized reinforcement of IMD behaviors. In contrast, hospital-based interventions, like those in Özlüses & (Çelebioglu, 2014) and (Raeisi et al., 2014), targeted fathers pre- and post-delivery but were constrained by time and institutional protocols. In LMIC settings, where cultural norms often relegate breastfeeding to a maternal domain, these interventions effectively repositioned the father as a key influencer in IMD decisions even after cesarean surgery, when the mother may be physically limited.

Breastfeeding Outcomes

Collectively, the reviewed studies confirm that father involvement significantly improves breastfeeding outcomes. Key outcomes included increased rates of IMD, exclusive breastfeeding up to six months, and extended duration of breastfeeding. This effect was particularly salient among mothers undergoing cesarean sections, where delayed recovery, anesthesia effects, and maternal-infant separation can impede early breastfeeding. Supportive fathers facilitated both logistical and emotional assistance during this critical postpartum window, as seen in studies from Indonesia (Indrasari, 2022) and Vietnam (Bich et al., 2016).

Table 1. Summary of Studies on Father Support for Early Breastfeeding Initiation among Cesarean Mothers in Lower-Middle-Income Countries

Author, Year	Design	Setting	Location	Participants	Intervention Components	Breastfeeding Measure	Data Analysis	Breastfeeding Outcome
Su & Ouyang, 2016	Quasi-experimental	Hospital-based prenatal education	China (LMIC)	72 couples (36 intervention, 36 control)	Antenatal education booklet, father class	Early initiation, attitude, knowledge	Mann-Whitney U test, Chi-square	Significant improvement in IMD and maternal breastfeeding attitude ($p<0.05$)
Bich et al., 2016	Quasi-experimental	Health facility & home visits	Vietnam (LMIC)	251 intervention, 241 control couples	Mass media, counselling, home visits	Early initiation, exclusive BF	Logistic regression, Chi-square	IMD increased from 39.6% to 81.2% ($p<0.001$); higher EBF at 6 months
Raeisi et al., 2014	RCT	Research centre	Iran (LMIC)	100 fathers (50 intervention, 50 control)	Father breastfeeding training, brochures	Continued breastfeeding at 6 months	Chi-square	EBF at 6 months: 94% (intervention) vs. 76% (control) ($p<0.01$)
Özlüses & Çelebioglu, 2014	RCT	Hospital postnatal ward	Turkey (LMIC)	117 couples (39 each group)	Education manual, breastfeeding training	EBF up to 6 months	ANOVA, Chi-square	EBF at 6 months: 56% (father+mother) vs. 33% (mother only) vs. 12% (control), $p<0.001$
Susin & Giugliani, 2008	RCT	Hospital postpartum ward	Brazil (LMIC)	601 mothers & fathers	Video, discussion, handouts	EBF, knowledge	Kaplan-Meier, Cox regression	Higher EBF at 4 months: 16.5% (both parents) vs. 5.7% (control), $p=0.003$
Sahip & Turan, 2007	Clinical trial	Workplace	Turkey (LMIC)	182 fathers (102 intervention, 80 control)	Breastfeeding education sessions	Early initiation, EBF at 3 months	Chi-square, t-test, ANOVA	OR=2.4 for IMD; OR=3.4 for EBF at 3 months
Indrasari, 2022	Quasi-experimental	Puskesmas	Indonesia (Lampung Barat)	50 postpartum mothers	Family support module incl. fathers	Early initiation	T-test, Chi-square	Faster IMD in intervention group ($p=0.014$)
Tri Budiati et al., 2021	Qualitative	Community-based	Indonesia (West Java)	20 postpartum mothers	Observational & narrative interview	EBF, father involvement	Thematic analysis	Father presence helped mothers cope and improve IMD
Gayatri & Dasvarma, 2022	Cross-sectional	IDHS secondary data	Indonesia (national)	15,000+ mothers	Mode of delivery as variable	IMD prevalence	Logistic regression	Section mothers 67% less likely to perform IMD (OR=0.33)
Bich & Cuong, 2017	Experimental follow-up study	Rural community	Vietnam (LMIC)	128 fathers	Group counselling & video education	EBF, knowledge, attitude	Pre-post paired t-test	Knowledge ↑ 34.7%; Attitude ↑ 28%; EBF ↑ 18%

Breastfeeding Initiation

IMD was the most frequently assessed outcome and the most responsive to father-focused interventions. Studies such as (Indrasari, 2022) reported statistically significant improvements in IMD among cesarean mothers whose husbands received structured education and were present post-operatively. Similarly, (Su & Ouyang, 2016) in China documented increased IMD rates following father involvement through booklet-based education. These findings emphasize that father readiness, emotional encouragement, and physical presence are critical enablers of breastfeeding initiation, particularly when mothers experience post-surgical limitations.

Exclusive Breastfeeding

Exclusive breastfeeding up to six months was another prominent outcome across studies. For example, (Raeisi et al., 2014) found that EBF rates increased to 94% in the intervention group compared to 76% in the control. These effects are particularly important for cesarean mothers, who often face delayed lactogenesis and lower breastfeeding confidence. In LMIC settings, where formula feeding can impose financial and health burdens, father's informed decisions and active encouragement can maintain exclusive breastfeeding practices longer and more consistently.

Continued Breastfeeding

Though data on continued breastfeeding beyond six months were less common, studies such as (Bich & Cuong, 2017) and (Tri Budiati et al., 2021) indicated that sustained father involvement led to prolonged breastfeeding, especially when fathers were continuously engaged in childrearing discussions. These patterns suggest that initial paternal support during IMD lays a foundation for long-term breastfeeding success, an area worthy of more focused longitudinal studies in LMIC cesarean populations.

Secondary Outcomes: Awareness, Knowledge, Attitude and Support

Beyond behavioral outcomes, most studies showed that educational interventions significantly improved fathers' awareness, knowledge, and attitudes toward breastfeeding. In (Gayatri & Dasvarma, 2022), qualitative results revealed improved communication between couples and increased emotional bonding due to shared responsibility. In (Su & Ouyang, 2016), fathers reported greater confidence in their ability to assist post-cesarean mothers during the critical first hours and days. These cognitive and emotional shifts are essential for addressing traditional gender norms that often limit father involvement in maternal-infant care in LMICs.

Quality and Limitations of Evidence

Most RCTs included in this review were assessed using the Joanna Briggs Institute (JBI) criteria. While the majority demonstrated methodological soundness, common limitations included lack of blinding and incomplete reporting of dropout management. Quasi-experimental studies, while informative, often lacked control groups or had baseline dissimilarities, reducing the internal validity. Despite these limitations, the consistency of results across diverse LMIC settings strengthens the evidence base supporting father-focused interventions for breastfeeding initiation, especially in the unique context of cesarean births.

DISCUSSION

This literature review highlights the pivotal influence of father involvement in improving early breastfeeding initiation (EBI) among cesarean-delivered mothers in LMICs. Cesarean section is associated with delayed mother-infant bonding, reduced maternal mobility, and interruptions in lactogenesis, all of which place mothers at higher risk for delayed or failed breastfeeding initiation (Indrasari, 2022; Özlüses & Çelebioglu, 2014). In this context, paternal support serves as both a compensatory and catalytic force. Studies such as (Raeisi et al., 2014) and (Tri Budiati et al., 2021) show that fathers who were engaged in structured interventions whether through hospital-based prenatal education or home-based counseling played critical roles in facilitating immediate skin-to-skin contact, emotional reassurance, and logistical support in early post-operative recovery. Notably, father-only interventions were as effective,

if not more, than combined interventions involving both parents, indicating that men's roles in maternal breastfeeding behavior may have been historically underutilized (Bich et al., 2016; Sahip & Turan, 2007).

These findings point to the importance of designing breastfeeding programs that do not merely include fathers, but empower and educate them as primary agents of support especially during cesarean recovery windows, when maternal autonomy is temporarily diminished. Furthermore, the impact of paternal support extends beyond breastfeeding initiation to include exclusive and continued breastfeeding. Studies in Indonesia, Vietnam, and Turkey consistently show higher rates of exclusive breastfeeding at one and three months postpartum in groups receiving structured paternal engagement, compared to standard maternal-only care (Bich & Cuong, 2017; Indrasari, 2022; Özlüses & Çelebioglu, 2014). However, despite these benefits, major gaps persist in the long-term evaluation of sustained breastfeeding outcomes very few studies assessed continuation beyond six months, even though WHO guidelines recommend up to two years of breastfeeding (WHO, 2001).

In addition, psychosocial variables such as father's knowledge, attitudes, and cultural perceptions of breastfeeding although occasionally measured were not consistently integrated into intervention frameworks (Su & Ouyang, 2016; Gayatri & Dasvarma, 2022). The lack of methodological rigor in some quasi-experimental studies, including poor blinding or group allocation (Bich & Cuong, 2017), further limits the robustness of generalization. Nevertheless, the overall trend across diverse LMIC settings affirms that father-targeted interventions particularly those that address gender norms, involve repetitive engagement, and provide emotional as well as informational support are a promising and cost-effective strategy to enhance breastfeeding outcomes among cesarean-delivered mothers.

CONCLUSION

This literature review confirms that father involvement is a vital but underrecognized factor in enhancing early breastfeeding initiation (EBI) among cesarean-delivered mothers in LMICs. Structured and culturally appropriate interventions targeting fathers have consistently improved breastfeeding initiation, exclusivity, and maternal confidence during post-cesarean recovery. Fathers play a key compensatory role in overcoming breastfeeding delays caused by surgical birth and recovery challenges. However, the existing literature reveals notable limitations, including inconsistent methodologies, limited assessment of long-term breastfeeding outcomes, and insufficient focus on cesarean-specific interventions. The lack of stratified analysis for cesarean populations and minimal exploration of fathers' psychosocial influence such as their knowledge, attitudes, and cultural roles highlights critical gaps that future research must address to maximize the effectiveness of paternal support in LMICs.

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