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Swiping for connection: tribe identity and sexual health among sexual minority men who use dating apps

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Background: Dating applications, or “dating apps,” are widely used by sexual minority men (SMM) to form social and sexual connections. These platforms support intimacy, identity expression, and community engagement but have also been linked to sexual health risks and psychological distress. Although research on dating app use is growing, studies remain limited. This study examines dating app use, tribe identity, and sexual health behaviors in a sample of U.S. SMM.

Methods: A total of 549 gay and bisexual men aged 18–50 years completed an online survey and were recruited via Qualtrics Survey Panels, assessing dating app use, tribe identity, sexual activity, condom use, and awareness and use of pre-exposure prophylaxis (PrEP). Descriptive statistics explored patterns of digital engagement, identity expression, and sexual health behaviors.

Results: Most participants (69.4%) reported using dating apps, primarily for casual sex (46.3%). Among sexually active participants, 39.9% did not use condoms during their last sexual encounter. Only 17.8% of those aware of PrEP were currently using it, and 33.5% had never heard of it. Tribe identity was diverse but not universal; 32.1% reported no affiliation, while others identified with groups such as “Clean-cut,” “Bear,” and “Jock,” revealing potential links to appearance-based norms and sexual decision-making.

Conclusion: Dating app use may influence both health behaviors and digital communication patterns among sexual minority men. Our findings underscore the need for inclusive, culturally responsive interventions that address gaps in sexual health knowledge while also considering how digital discourse and platform design shape communication, perception, and engagement.

KEYWORDS

dating apps, sexual minority men, tribe identity, sexual health behaviors, LGBTQ+ health, PrEP awareness

1 Introduction

Dating applications—commonly referred to as “dating apps”—have become a dominant medium for social and sexual connection, particularly among sexual minority men (SMM). In the United States (U.S.), platforms such as Grindr, Scruff, and Hornet serve as primary tools for these individuals to form connections, offering location-based matching, customizable profiles, and identity-centered interactions. Far from being tools of mere convenience, these apps have become embedded in how users navigate intimacy, community, and self-expression.

The widespread use of dating apps among SMM is also well documented. Approximately 85% of men who have sex with men (MSM) report using a dating app to meet a partner (Hecht et al., 2024), and a Pew Research Center study found that 51% of lesbian, gay, and bisexual adults in the U.S. have used online dating platforms, compared to 28% of heterosexual adults (Gelles-Watnick, 2023; Vogels and Colleen, 2023). As dating apps become increasingly integrated into the daily lives of SMM, researchers have turned their attention to the psychosocial and behavioral effects linked to their usage.

While dating apps may offer benefits such as increased visibility, peer support, and access to sexual health information, their use has also been associated with adverse outcomes. For example, frequent engagement with dating apps have been linked to elevated levels of psychological distress, including symptoms of depression, anxiety, and body dissatisfaction (Bonilla-Zorita et al., 2023; Wade and Pear, 2022). These outcomes may be influenced by stressors such as sexual rejection, racialized exclusion, and pressure to conform to body ideals promoted within digital spaces (Garcia-Iglesias et al., 2024). Research has also identified associations between dating app use and appearance-related stress, disordered eating behaviors, and muscle-enhancing practices, underscoring how app-based cultures may exacerbate body image concerns (Tran et al., 2023). Additionally, dating apps have been linked to sexual health risks, including engagement in condomless sex, having multiple sexual partners, and higher rates of sexually transmitted infections (STIs), in part due to the speed at which casual encounters can be promoted (Castro and Barrada, 2020).

Despite these concerns, dating apps also offer opportunities for health promotion. Some dating apps have integrated sexual health features such as reminders for HIV testing, referrals for pre-exposure prophylaxis (PrEP), a daily medication regimen that significantly reduces the risk of HIV acquisition among individuals at increased risk of exposure, and in-app health campaigns (Hecht et al., 2024). An understudied aspect of dating app culture is tribe identity, which is a self-ascribed label system that categorizes users by their physical appearance, sexual role, or subcultural affiliation (e.g., “bear,” “twink,” “poz”). Tribe identity plays a critical role in shaping experiences of belonging, social capital, and perceived value within digital sexual ecosystems (Garcia-Iglesias et al., 2024).

Our study aims to describe patterns of dating app use, tribe identity, and sexual health behaviors among a sample of cisgender gay and bisexual men in the U.S. By providing a descriptive overview of these interconnected features, we seek to inform future research and guide culturally responsive public health interventions tailored to the needs of sexual minority male populations.

2 Materials and methods

2.1 Participants

Our research team conducted a secondary analysis that utilized existing data from the Men's Body Project (MBP), a cross-sectional study based at the University of New Haven in West Haven, Connecticut (Tran et al., 2023). The MBP was an online survey conducted in spring of 2020, designed to assess a range of health behaviors among gay and bisexual men in the U.S., including dating app use, body image perceptions, muscle-enhancing behaviors, sexual

health practices, and experiences related to identity and social interaction (Tran et al., 2023). Participants were recruited via Qualtrics Survey Panels and were incentivized through cash, airline miles, vouchers, and other rewards based on the length of the survey and specific panelist profiles (Tran et al., 2023). Eligible participants were cisgender gay and bisexual men aged 18–50 years, residing in the U.S., and able to read and understand English. All respondents provided informed consent before participation. The study received ethical approval from the Institutional Review Board at the University of New Haven (IRB approval #2022-015).

2.2 Variables measured

2.2.1 Demographic characteristics

Participants were asked to report a range of demographic variables, including age (in years), race (with the option to select multiple categories), Hispanic/Latino ethnicity, relationship status, employment status, sexual orientation, height, and weight. Body mass index (BMI; kg/m²) was calculated from self-reported height and weight. Additionally, participants provided information on health-related behaviors such as cigarette use, marijuana use, electronic cigarette use, alcohol consumption, and sexual activity within the past 12 months. Sexual health measures included the number of sexual partners, condom use at last intercourse, awareness of PrEP, and current PrEP use.

2.2.2 Dating app use

Dating app use was assessed by three items. Participants were first asked whether they had ever used a dating app (e.g., Tinder, Grindr, Scruff), followed by a question assessing frequency of use (ranging from “Never” to “All the time”). An additional item asked participants to identify their motivations for using dating or hookup apps. Response options included reasons such as “to meet people to hook up with,” “to connect to the LGBTQ community,” and “to kill time,” among others.

2.2.3 Tribe identity

To assess tribe identity, participants were asked two related questions. The first allowed them to select all dating app “tribes,” communities, or group labels with which they identified (e.g., Bear, Jock, Geek, Leather, Poz, Daddy, Twink, etc.), while the second asked them to indicate the one tribe they most strongly identified with. Both items included “Other (please specify)” and “None” response options, allowing for more nuanced or personalized self-identification.

2.3 Data preparation and analysis

All analyses were conducted using R 4.3.0. Descriptive statistics, including means, standard deviations, and frequencies, were used to summarize demographic characteristics, dating app usage patterns, self-identified tribe identities, and sexual health-related behaviors among the sample. Given the study's aim to explore behavioral patterns and identity characteristics within a diverse SMM population, analyses focused on descriptive rather than inferential statistics to allow for detailed pattern identification without the assumptions required by parametric models. Several variables were subject to skip logic,

necessitating careful interpretation to differentiate between missing and inapplicable responses. For instance, 108 participants were flagged as missing on questions related to number of sexual partners and condom use, but these individuals had previously indicated no sexual activity in the past 12 months. These responses were recoded as inapplicable rather than missing, and participants were retained in the overall sample. A similar logic was applied to PrEP use. While 184 participants were marked as missing for PrEP use, these individuals had indicated they were unaware of PrEP, rendering them ineligible for follow-up questions. Their responses were preserved and relabeled to reflect inapplicability rather than true missingness.

For all other variables, missing data were retained as observed. Notably, 45 participants were excluded from analyses involving non-prescribed drug use due to a lack of response, which was considered genuine missing data.

Regarding dating app motivations, participants who responded “never” to having used dating apps were not shown follow-up questions about reasons for use. However, a few individuals in this group still provided motivation responses, creating a minor inconsistency. These responses were retained to preserve the completeness of the dataset. Additionally, 109 participants did not respond to the item about reasons for using dating apps. Because this was a “select all that apply” question, reported percentages for motivation for dating app use categories are not mutually exclusive and may exceed 100%.

All self-identified tribe categories were retained in the final dataset to reflect the full diversity of participant identities. Throughout data analysis, attention was paid to skip logic and survey structure to ensure accurate interpretation and analytic validity.

3 Results

3.1 Participant characteristics and health behaviors

A total of 549 gay and bisexual men participated in the study. [Table 1](#) presents a detailed overview of their sociodemographic characteristics and selected health behaviors. The sample was diverse in age, with 54.6% between 35 and 50 years old, 25.9% between 25 and 34, and 19.5% between 18 and 24. Most participants identified as non-Hispanic (81.2%) and White (71.4%), while others identified as Black (13.8%), Asian or Pacific Islander (8.0%), or American Indian/Other (6.7%).

With regard to sexual orientation, 52.1% of participants identified as gay and 47.9% as bisexual. Relationship status varied, with 55.9% reporting they were single or casually dating, and 25.0% indicating they were married or engaged. The majority of respondents (63.2%) were employed full-time at the time of the survey.

Substance use was commonly reported. In the past 12 months, 72.3% of participants reported consuming alcohol, 43.2% reported marijuana use, 41.0% reported smoking cigarettes, and 30.8% reported using e-cigarettes.

3.2 Sexual behavior and condom use

The majority of participants (80.3%) reported being sexually active within the past 12 months. Among these individuals, 42.4%

reported having 1–2 sexual partners, 17.1% had 3–5 partners, and 20.8% reported having six or more partners during that period.

Condom use at the last sexual encounter varied: 37.7% of participants reported using a condom, 39.9% reported not using one, and 22.4% declined to respond. Additionally, 108 participants indicated they had not been sexually active in the past year.

3.3 PrEP awareness and use

Approximately two-thirds of participants (66.5%) reported having heard of PrEP. Among those individuals, 17.8% were currently using it, while 82.2% were not. The remaining 33.5% indicated they had never heard of PrEP and were therefore not shown follow-up questions about usage.

3.4 Dating app use patterns and motivations

[Table 2](#) presents patterns of dating app use and motivations among participants. When asked about frequency of dating app use, responses ranged widely: 7.3% reported using apps “all the time,” 8.2% “very often,” 8.7% “often,” 21.7% “sometimes,” and 23.5% “rarely.” A notable 30.6% reported never using dating apps. Among the 381 participants who reported any use, motivations varied, reflecting a range of self-reported social and sexual reasons for app use. The most common reason for using apps was to “meet people to hook up with” (46.3%), followed by “make new friends” (36.2%), “kill time” (28.6%), and “meet people to date” (28.6%). Less frequently reported reasons included connecting with the LGBTQ+ community (16.2%), improving self-esteem (13.7%), reconnecting with people from the past (6.9%), finding people to use substances with (8.2%), and connecting with family (1.3%).

3.5 Tribe identity

[Table 3](#) summarizes the distribution of self-identified tribe identities, a feature that reflects how individuals describe themselves within the context of dating apps. Participants were allowed to select more than one identity, or none at all. Approximately 32.1% selected “None,” indicating they did not identify with any specific tribe label. The percentages below reflect the full sample ($N = 549$), not just those who selected a tribe. The most common identities were Clean-cut (14.6%), Daddy (9.3%), Bear (8.7%), Jock (7.3%), and Discreet (6.2%). Other identities included Geek (5.3%), Twink (4.7%), Otter (4.2%), and Trans (1.8%), with an additional 5.8% choosing “Other.”

4 Discussion

This study contributes to the growing literature around the use of dating apps, particularly regarding SMM’s experiences. In our sample, SMM reported dating apps as platforms they use for seeking sexual and romantic partners, as well as for self-expression, social connection, and community navigation. The data show a range of reported app use

TABLE 1 Sociodemographic characteristics and health behaviors of study population (N = 549).

Variable	n (%)
Age (years)	
18–24	107 (19.5%)
25–34	142 (25.9%)
35–50	300 (54.6%)
Ethnicity	
Hispanic	103 (18.8%)
Non-Hispanic	446 (81.2%)
Race	
White	392 (71.4%)
Black	76 (13.8%)
Asian/Pacific Islander	44 (8.0%)
American Indian/Other	37 (6.7%)
Body mass index (BMI, kg/m²)	
<18.5	22 (4.0%)
18.5 – 24.9	219 (39.9%)
25.0 – 29.9	191 (34.8%)
≥30.0	117 (21.3%)
Sexual orientation	
Gay	286 (52.1%)
Bisexual	263 (47.9%)
Relationship status	
Single/dating	307 (55.9%)
Living with a partner	80 (14.6%)
Married/engaged	137 (25.0%)
Divorced/widowed/separated/other	25 (4.6%)
Employment status	
Full-time	347 (63.2%)
Part-time	49 (8.9%)
Student	51 (9.3%)
Unemployed	80 (14.6%)
Other	22 (4.0%)
Smoked cigarettes (past 12 months)	
Yes	225 (41.0%)
No	324 (59.0%)
Used marijuana (past 12 months)	
Yes	237 (43.2%)
No	312 (56.8%)
Used electronic cigarettes (past 12 months)	
Yes	169 (30.8%)
No	380 (69.2%)
Drank alcohol (past 12 months)	
Yes	397 (72.3%)
No	152 (27.7%)

(Continued)

TABLE 1 (Continued)

Sexually active (past 12 months)	
Yes	441 (80.3%)
No	108 (19.7%)
Number of sexual partners (past 12 months)	
1–2 partners	233 (42.4%)
3–5 partners	94 (17.1%)
6 + partners	114 (20.8%)
Not sexually active	108 (19.7%)
Use condom (last intercourse)	
Yes	207 (37.7%)
No	219 (39.9%)
I have never had sexual intercourse	15 (2.7%)
Not sexually active	108 (19.7%)
Heard PrEP before	
Yes	365 (66.5%)
No	184 (33.5%)
Taking PrEP now	
Yes	65 (11.8%)
No	300 (54.6%)
Not heard of PrEP	184 (33.5%)

patterns and behaviors, suggesting varying experiences with sexual expression and community engagement among participants.

Several notable patterns were observed from our analyses, particularly regarding SMM's sexual health behaviors. Notably, close to 40 percent of participants reported not using a condom during their last sexual encounter, indicating a prevalence of condomless sex within the sample. In addition, we found that under 12 percent of participants reported current PrEP use, fewer than 34 percent had never heard of it. This low rate of PrEP use and high rate of participants unaware of PrEP highlight potential gaps in awareness of a significant HIV-preventative measure. Our findings appear to corroborate those of existing research that have identified barriers to accessing PrEP. Warzywoda et al. (2024) identified multiple factors that hinder PrEP uptake, including stigma, low health literacy, provider bias, and complexities within the healthcare system. Youth who identify as sexual minorities, in particular, face challenges related to confidentiality, insurance coverage, and misinformation, all of which limit access (Leichliter et al., 2017). Furthermore, Kislovskiy et al. (2022) and colleagues suggest that individuals who have transactional sex or belong to other marginalized groups are frequently unaware of PrEP or hold misconceptions about its use. Studies have called for multi-level, culturally tailored interventions, including peer-led models, to address these disparities. Efforts should involve the training and education of clinicians in culturally competent care, equip peer educators to reach their communities, and embed science-based information in digital platforms where users already spend time. Our findings, though descriptive, highlight the potential of online health promotion within dating apps. Given users' frequent engagement, in-app features such as PrEP education, testing reminders, and referrals to LGBTQ-affirming providers could help close awareness gaps and

TABLE 2 Patterns of dating app use and motivations among participants (N = 549).

Measure	n (%)
Dating apps frequency	
All the time	40 (7.3%)
Very often	45 (8.2%)
Often	48 (8.7%)
Sometimes	119 (21.7%)
Rarely	129 (23.5%)
Never	168 (30.6%)
Reasons for using dating apps*	
Meet people to hook up with	254 (46.3%)
Make new friends	199 (36.2%)
Meet people to date	157 (28.6%)
“Kill time”	157 (28.6%)
Connect to the LGBTQ community	89 (16.2%)
Feel better about myself	75 (13.7%)
Find people to use substance with	45 (8.2%)
Connect with people from the past	38 (6.9%)
Connect with family	7 (1.3%)
Other	12 (2.2%)
Missing	109 (19.9%)

* Percentages in the sub-categories are not mutually exclusive, meaning that a single participant could be included in multiple sub-categories.

promote safer sexual practices. However, national data show that despite growing PrEP use in the United States (approximately 591,475 users in 2024), significant racial and geographic disparities persist, and evidence on the uptake and effectiveness of these in-app tools remains limited (AIDSvU, 2025).

Another focus of our study was tribe identity, a system of self-labeling reported by participants within the context of dating app use. These identities, such as “Bear,” “Jock,” “Daddy,” and “Twink,” offer SMM a way to signal their esthetic preferences, sexual roles, or community affiliations. Participants’ selection of these labels may reflect social dynamics such as belonging, as well as potential pressures related to body image and exclusivity, which warrant further investigation. In our study, approximately one-third of our participants did not identify with any tribe, suggesting that these categories may not resonate universally. However, for those who did identify with tribes, such labels may reflect deeper engagement with specific norms, some of which are tied to expectations around appearance, masculinity, and desirability. Prior research confirms that users aligned with specific tribes often face heightened pressures to conform to idealized body types. Tran et al. found that sexual minority men who use dating apps are significantly more likely to engage in unhealthy weight control practices (e.g., fasting, purging) and muscle-enhancing behaviors (e.g., steroid use), with tribe identity often shaping these behaviors (Tran et al., 2023). Nevertheless, the scientific literature on tribes remains limited, and we believe additional research aimed at enhancing the current understanding of the mental and physical health associations with tribe identity is warranted. Future research should also explore how

TABLE 3 Dating app tribes of study population (N = 549).

Main tribe identity group*	n (%)
Clean-cut	80 (14.6%)
Daddy	51 (9.3%)
Bear	48 (8.7%)
Jock	40 (7.3%)
Discreet	34 (6.2%)
Geek	29 (5.3%)
Twink	26 (4.7%)
Otter	23 (4.2%)
Trans	10 (1.8%)
Other	32 (5.8%)
None	176 (32.1%)

* Participants were asked to indicate the single tribe with which they most identified.

identification with gay tribes has evolved over time and across racial, ethnic, and generational groups to better understand whether shifting cultural norms have influenced the relevance of these identity categories.

Additionally, although dating apps are often associated with hookup culture, many participants reported using them for non-sexual reasons, such as building friendships or romantic connections. This suggests that these platforms serve as multifunctional social networks, especially for individuals who may lack access to affirming spaces offline. Prior studies have reported links between frequent or compulsive use of dating apps and psychological strain. In our sample, a notable proportion of participants reported frequent app use. Prior studies have reported that frequent dating app use among sexual minority men is associated with increased psychological strain, including anxiety and depression (Freire et al., 2023; Holtzhausen et al., 2020). Such effects have been hypothesized to be influenced by minority stress, internalized stigma, and digital feedback loops, as suggested in prior literature. Holtzhausen et al. (2020) suggest that design features of dating apps, such as swiping mechanisms, image-based matching, and real-time notifications, contribute to compulsive behaviors and negative self-perception. Freire et al. (2023) add that these mental health effects are often compounded for users navigating intersecting stressors, including racial discrimination, body image anxiety, and exclusion within the LGBTQ+ community.

Finally, our study points to broader policy implications. Structural inequities, such as lack of health insurance, legal discrimination, and racism, continue to shape access to care and exposure to digital harms. For instance, Wade and Pear (2022) showed how sexual racism on dating apps, manifesting in exclusionary language, such as “No Blacks,” has direct negative effects on the mental health of young Black sexual minority men. Yet, the same study showed that ethnic identity can be a protective factor, buffering these harms. This underscores the need for intersectional, equity-driven public health frameworks that consider not only sexual identity but also race, class, geography, and cultural context.

While this study sheds light on dating app use intentions and tribe identity among bisexual and gay men, thereby contributing to the limited scientific literature on the topic, several limitations should be acknowledged. First, the findings reflect self-reported behaviors and identity choices at a single point in time, which limits the ability to examine causality, directionality, or associations between variables. As

such, all results should be interpreted as patterns of behavior, not indicative of underlying mechanisms or relationships. Second, reliance on online recruitment and self-reported responses introduces the possibility of recall bias and also inhibits our ability to generalize our findings to other populations as we used convenience sampling of SMM through Qualtrics Survey Panels. Third, the identity categories offered may not have captured the full range of how participants conceptualize themselves; the high percentage selecting “None” or “Other” suggests a need for more inclusive or participant-generated options. Fourthly, while our eligibility criteria specified cisgender gay and bisexual men, a small number of participants self-identified as transgender within the tribe identity framework. Their inclusion reflects the diversity of self-identification in gay social spaces, though their perspectives represent a small subset and may not capture trans-specific experiences. Our measure of “last sexual encounter” also did not distinguish between types of sexual activity, and the study did not assess reasons for nonuse of PrEP or condoms, limiting our understanding of the contextual factors shaping prevention behaviors. While prior research suggests possible influences such as stigma, health literacy, and provider bias, these mechanisms could not be directly examined here. As such, interpretations of safer sexual practices should be made with caution. Additionally, the sample may underrepresent individuals from rural areas due to the online recruitment approach, which tends to draw more participants from urban and suburban regions with greater internet access. Individuals with limited digital access or from racially or gender-diverse backgrounds may also be underrepresented, limiting generalizability. Some inconsistencies in skip logic (e.g., participants reporting never using dating apps but selecting app use motivations) highlight the need for clearer survey flow. Future research should consider stratified sampling, expanded identity frameworks, and mixed-method approaches to deepen understanding of how sexual minority men engage with dating apps across diverse contexts. Longitudinal or qualitative work could further elucidate how digital identities and health behaviors evolve over time, especially when grounded in community collaboration.

Despite the limitations, our study involved a diverse sample of gay and bisexual men in the U.S. Our findings also underscore a critical need to reframe how we understand and utilize dating apps in public health. Traditionally viewed as spaces of risk, particularly in the context of HIV and STI transmission, these platforms also offer an untapped opportunity for promoting sexual health, mental well-being, and digital equity among sexual minority men. Many apps already include features such as reminders for HIV testing, links to PrEP resources, and health information pop-ups. However, these tools remain both underutilized and insufficiently evaluated (AIDSVu, 2025; Hempel et al., 2022). To address this gap, partnerships between public health practitioners, researchers, and dating app developers could help create in-app interventions that are culturally relevant. As Kesten et al. (2019) found, men who have sex with men view dating apps as acceptable channels for receiving sexual health information, especially when messages are sex-positive, non-judgmental, and affirming. Interventions, such as reminders for HIV testing, PrEP eligibility assessments, and geo-targeted messages from LGBTQ+-affirming clinics, informed by the experiences of gay and bisexual men should be further explored and evaluated. Furthermore, future efforts must also be geographically inclusive as rural sexual minority men face unique risks on dating apps, such as catfishing, coercion, and cyberbullying, that compound feelings of

isolation and anxiety (Lauckner et al., 2019). Public health strategies must recognize these geographic disparities and tailor interventions accordingly, ensuring that rural LGBTQ+ populations are not left behind.

5 Conclusion

This descriptive study examined dating app use, tribe identity, and sexual health behaviors among a diverse sample of gay and bisexual men in the U.S., highlighting patterns of digital engagement, identity expression, and health-related practices. Participants reported varied motivations for app use, low awareness and uptake of PrEP, and diverse affiliations with tribe labels, some of which reflected appearance-based norms. These descriptive findings suggest the value of culturally responsive, in-app health messaging tailored to the lived experiences of sexual minority men. As digital environments both reflect and reshape sexual health narratives, thoughtful and inclusive communication strategies are essential to advancing health equity.

Data availability statement

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request. Requests to access these datasets should be directed to AT, atran@newhaven.edu.

Ethics statement

The studies involving humans were approved by University of New Haven Institutional Review Board. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

KM: Writing – original draft, Writing – review & editing, Formal analysis. YZ: Formal analysis, Writing – review & editing, Conceptualization. AT: Writing – review & editing, Methodology, Data curation, Formal analysis, Conceptualization, Supervision.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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