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Navigating Loneliness and Solitude: A Comprehensive Literature Review of International Student Adaptation, Coping Strategies, and Institutional Interventions

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Abstract Loneliness among international students is both prevalent and consequential—linked to worse mental-health outcomes and lower engagement. In one large online sub-sample, screening positives reached 96%. This review employs social identity/identity negotiation and appraisal–coping and self-determination theories to analyze identity/belonging and coping mechanisms and network interactions and academic discourse through a critical narrative approach. PRISMA-aligned identification and reporting were used to improve transparency; the design is a critical narrative review with theory-informed thematic synthesis. The research combined data from 27 empirical studies while analyzing two reviews as separate entities. The research findings confirm the theoretical framework. showing four main findings: (1) an early post-arrival high-risk window; (2) identity threat/discrimination channeling appraisals toward low controllability and withdrawal-leaning coping; (3) language/academic-discourse thresholds depressing participation; and (4) friendship-network composition/role quality. Support origin differentiates trajectories (home-context vs host-context). Students need to develop control over their situation while building strong relationships with people who live near them so as to achieve better results. Institutions may consider one-path onboarding, invited-voice mentoring (with discourse scaffolds), visible anti-discrimination/empowerment cues, and

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housing-as-signpost—keeping routes into near-distance ties open. Volitional (autonomous) solitude can be adaptive, whereas avoidant solitude aligns with distress. Included studies were limited by mixed measures, scant moderator analyses, and predominantly cross-sectional methods. Future work could separate loneliness versus solitude motives, verify cross-language reliability, and adopt longitudinal models that test moderators.

Keywords: International students; Loneliness; Solitude; Coping strategies; Institutional supports

1. Introduction

Student mobility has increased worldwide because of globalization, which has transformed international education into a fast-growing global industry. Students from all over the world choose to study abroad because they want to achieve academic success, experience different cultures and gain professional advantages. International student mobility has experienced fast growth, but loneliness remains the most common and serious issue affecting this student population. Using 521 international students from a >54,000-participant dataset, Zheng et al. (2023) found that 96% of students studying abroad experienced loneliness, which included emotional distress and relationship challenges and feelings of being trapped and social discrimination against lonely people.

The clinical and educational significance of loneliness emerges from research which demonstrates its negative impact on mental health and functional performance while showing challenges in cultural measurement (Taylor et al., 2023). Research conducted in study-abroad environments demonstrates that students experience psychological distress and their academic performance deteriorates throughout the term as a result of experiencing loneliness (Hunley, 2010).

Research now shows that voluntary time spent alone can have positive effects because it enables people to develop autonomy and work on their identity and self-regulation (Nguyen et al., 2022). It is crucial to understand the distinction between loneliness, which causes distress because of insufficient social connections, and solitude whereby people choose to spend alone. Social network composition relates to adjustment; students who maintain more host-national friendships achieve better sociocultural integration and lower loneliness rates but students who only connect with co-nationals experience limited social involvement (Hendrickson et al., 2011; Kashima & Loh, 2006).

To explain why loneliness emerges and persists for some students more than others, this review integrates three lenses into a single pathway. Identity-based perspectives (identity negotiation; social identity) locate sources of identity threat and belonging expectations in cross-cultural settings, sahaping network access and the felt "safety" of social participation (Hotta & Ting-Toomey, 2013; Tajfel & Turner, 1986).

Stress-and-coping accounts specify how primary and secondary appraisals (threat, controllability) translate into coping choices under resource constraints, connecting perceived social risk with avoidance/withdrawal or approach-oriented strategies (Hunley, 2010). Finally, self-determination theory situates the quality and sustainment of coping, including volitional solitude—within basic psychological need satisfaction (autonomy, competence, relatedness), clarifying when time alone becomes adaptive rather than isolating (Ryan & Deci, 2000; Thomas & Azmitia, 2019).

International students use varied coping strategies for loneliness and solitude—active support-seeking, distraction, self-reliance, and intentional solitude (Vasileiou et al., 2019). Strategy choice is context-dependent: it varies across individuals and hinges on the availability of near-distance (host-context) and far-distance (home-based) support and institutional systems. In East Asian host settings, students often rely more on far-distance support, which can ease distress yet leave near-distance ties underdeveloped (Zheng & Ishii, 2023; Gao et al., 2025). Comparative work also suggests that cultural norms (e.g., U.S. individualism vs. Japanese group norms) shape social strategies (Ivanova et al., 2025).

Across regions, social support, especially host-bridging friendships, is associated with lower reported loneliness (Corney et al., 2024; Hendrickson et al., 2011; Sawir et al., 2008). However, a significant number of international students avoid university support services because they see them as culturally insensitive; they do not want to seek help for mental health issues as they face barriers to access. Thus, higher education institutions need to establish proactive steps to develop culturally sensitive intervention programs including peer-support programs, intercultural competency training and culturally focused counseling services that help students develop effective strategies to deal with loneliness while extracting the beneficial aspects of solitude (Yuan et al., 2024; Zhou et al., 2008).

At the same time, the evidence base remains fragmented in ways that complicate synthesis and practice guidance. Many studies rely on the UCLA loneliness scale (e.g., Revised UCLA; ULS-6) and often administer English versions to multilingual participants, with limited reporting of translation/back-translation, cognitive pretesting, or measurement invariance; consequently, cross-study

numeric comparisons are risky (Hunley, 2010; Taylor et al., 2023; Yuan et al., 2024). Mixed-method triangulation and longitudinal designs remain scarce, limiting insight into trajectories (transient → persistent) and mechanisms (Jackson et al., 2013).

Geographically, samples over-represent Western Anglophone contexts; subgroup reporting by nationality clusters, gender, and field of study is inconsistently provided, constraining "what works for whom" inferences. Against this backdrop, we articulate four aims to make the evidence decision-relevant:
(1) Characterize the prevalence and severity of international-student loneliness and synthesize its drivers.
(2) Consolidate protective factors and student-side strategies and clarify the boundary between loneliness and volitional solitude.
(3) Distill institution-level supports and actions that international students can take.
(4) Specify priority gaps for future work: to move from description toward mechanism-informed intervention design.

1.1 Method

A critical narrative review using theory-informed thematic synthesis (See Appendix A) was conducted. Identification and selection were informed by PRISMA-2020 to enhance transparency (flow diagram via the PRISMA2020 Shiny app). Searches began in the UR Library discovery layer and were refined in UR-licensed databases (PsycINFO, ERIC, JSTOR, Scopus, Web of Science).

The window spanned January–March and October 2025 (last search 20 Oct 2025), limited to peer-reviewed, English-language journal articles published 2000–2025. The 2000–2025 window reflects contemporary higher-education and student-mobility contexts and ensures comparability with modern loneliness/solitude and adaptation/acculturation measures, including the COVID period up to the final search date.

To balance sensitivity and specificity, queries combined controlled subject headings (LCSH/FAST, where indexed) with free-text keywords. Discovery facets were set to articles, peer-reviewed, English, and 2000–2025. Concept blocks covered:

- Population：international/foreign/overseas students（Subject: *Students, Foreign*; keywords include "international student," "foreign student," "overseas student,"）;
- Loneliness/health：*Loneliness*, *Social isolation*（keywords include "social disconnection," "cultural loneliness,","mental health"）;
- Solitude motives/coping：*Solitude*, *Motivation*, *Coping behavior*（keywords

include "self-determined/autonomous/avoidant");

- Culture/identity： *Acculturation*, *Identity*（keywords include "cultural adaptation," "identity negotiation"）;
- Networks/support：*Social networks*, *Peer group*, *Friendship*, *Social support*;
- Institutional supports/interventions：*Student services*, institutional support,（keywords include "student program," "intervention"）.

De-duplication occurred at import; single-reviewer screening with a 36-hour lagged audit (~25–30%) for consistency; exclusions were manually determined and logged. Subgroup/context heterogeneity was considered by extracting and annotating students' countries/regions of origin, host country, academic discipline/degree, length of stay, language proficiency/measurement language, and gender (Appendix A).

1.2 Eligibility criteria

1.2.1 Inclusion

Empirical studies and peer-reviewed narrative/state-of-the-art reviews on international higher-education students addressing loneliness/solitude, adaptation/identity, social networks/support, coping or solitude motives, or institutional supports. Up to three general-university empirical anchors directly operationalizing solitude motives/measurement were included and flagged for transferability. Conceptual/opinion pieces were excluded.

1.2.2 Exclusion

Studies focused solely on domestic or non-tertiary populations; dissertations, preprints, conference papers, or unpublished manuscripts; non-English records; and items without accessible full text.

1.2.3 Overlap management

Reviews were synthesized separately (secondary) and did not count toward primary studies; overlapping reports were collapsed to the most complete peer-reviewed version.

1.2.4 Risk of bias/quality

This review appraised study quality via a three-domain rubric (Sampling; Measurement & cultural validity; Design) to assign L/M/S (see Appendix A).

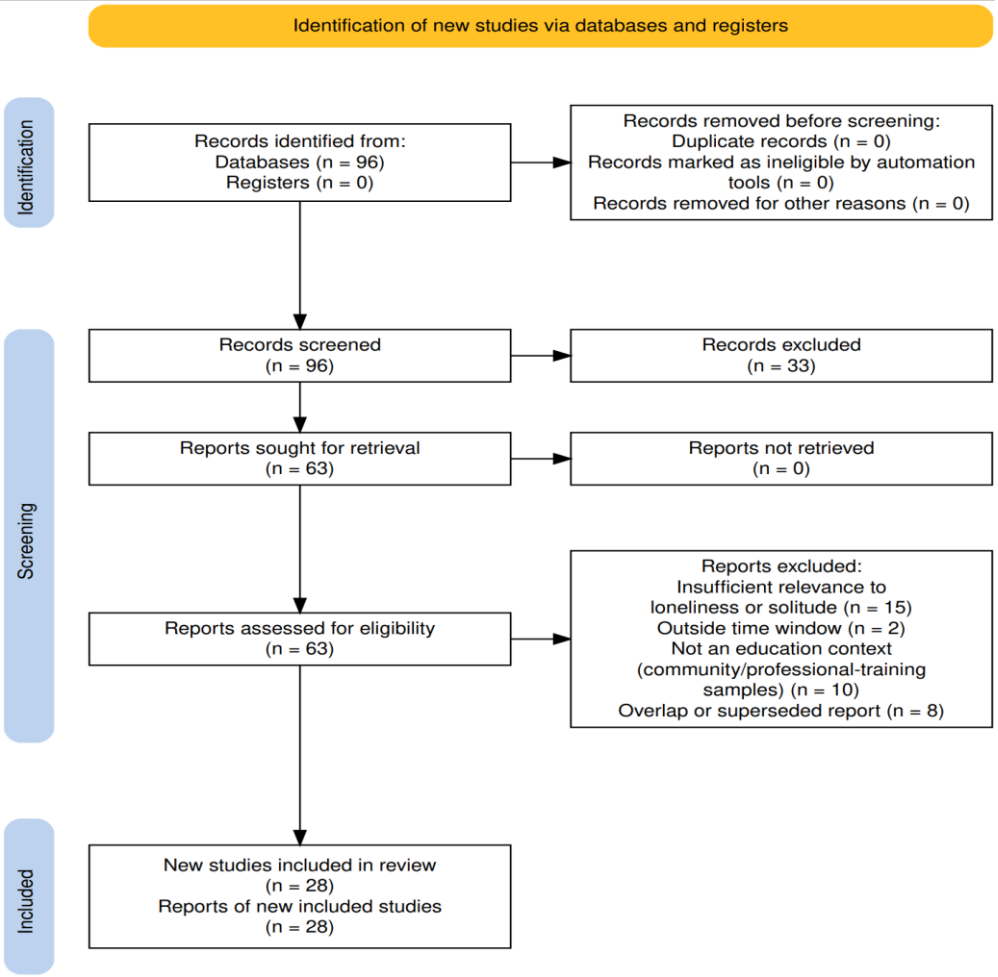

Figure 1: Diagram generated with the PRISMA2020 Shiny app (Haddaway et al., 2022)

1.3 Methodological Note

Measurement heterogeneity across primary studies (e.g., different UCLA versions, single-item indices, lack of separation between loneliness and solitude motives, measurement language/translation) and limited moderator modeling (gender, discipline/degree, origin/host, length of stay, proficiency, SEP) may constrain the generalizability of the synthesis. Non-English and grey literature were not systematically included, which may introduce language and publication bias.

1.4 Theoretical and Conceptual Perspectives

This section outlines core theoretical lenses used in this review and clarifies how each informs our interpretation of international-student loneliness and related constructs. We begin by defining loneliness and distinguishing it from objective isolation and voluntary solitude, then integrate identity-, stress-/coping-, and self-determination perspectives to frame mechanisms and supports.

1.4.1 Defining Loneliness

Loneliness is a subjective appraisal of social disconnection—an aversive state that arises when the desired level or quality of meaningful connection is judged as not met by one's actual relationships (Hawkley & Cacioppo, 2010). Classic work likewise defines loneliness as the unpleasant experience occurring when a person's network of social relations is deficient in important ways, whether quantitatively or qualitatively (Perlman & Peplau, 1981).

This framing distinguishes loneliness from objective social isolation: individuals may feel lonely despite frequent contact with others, and, conversely, may be alone without feeling lonely. In short, loneliness is not merely a passive "being alone" condition but a cognitively appraised, expectation–reality discrepancy about meaningful social connection.

A corollary is the need to differentiate loneliness from volitional (self-determined) solitude. Solitude based on autonomy is described as an adaptive mechanism that can enable people to reflect and regulate their behavior while remaining distinct from feelings of loneliness (Hawkley & Cacioppo, 2010; Perlman & Peplau, 1981).

1.4.2 Identity-Based Perspectives

Students who study abroad under the same circumstances may develop different patterns of loneliness because some appear to adjust more easily to their new environment while others maintain their isolation by forming groups with students from their home country. This disparity cannot be fully accounted for solely by "resource scarcity/language."

In cross-cultural study contexts, identity appraisals organize how social participation is pursued. Identity negotiation theory (INT) proposes that adaptation involves maintaining heritage identity through differentiation while performing host-context identities for integration purposes under the need to be appropriate and effective. Individuals may lose their social self-assurance when they experience outsider indicators through accent policing and stereotyping, which is associated with avoiding social contact and forming relationships primarily with people from their own nationality.

Inclusive cues (recognition, invitation to voice) increase controllability and support approach coping and bridging ties with host peers (Hotta & Ting-Toomey, 2013; Ting-Toomey, 2017). Social identity theory (SIT) adds that, when international status is salient and prototypicality for the host group is perceived as low, belonging uncertainty and outgroup anxiety rise, shifting network choices toward bonding rather than bridging; when group norms broaden ingroup boundaries, contact readiness and the role/quality of host-context ties improve,

lowering loneliness risk (Hogg et al., 2017).

1.4.3 Coping Architecture

The stress and coping theory define stress as the combination of primary appraisal, which identifies threats or losses or challenges, and secondary appraisal, which assesses available resources and personal control. People use coping as an ongoing process to handle situation requirements and emotional responses through cognitive and behavioral strategies based on their sense of control (Biggs et al., 2017). When demands are appraised as controllable, problem-focused coping (planning, instrumental help-seeking, skills practice.g., language/academic-discourse strategies) is selected and typically broadens exposure to supportive, role-relevant interactions.

When demands are appraised as less controllable, however, students turn to emotion-focused coping (reappraisal, acceptance, self-soothing); under chronic or evolving stressors, meaning-focused coping also becomes salient (Folkman, 2010). By contrast, avoidant/disengagement coping methods (such as social withdrawal and reduced classroom voice and homophilous or far-distance support) may result in experiencing decreased contact opportunities, with poorer tie quality and more persistent loneliness (Brown, 2009; Liu et al., 2024; Zheng & Ishii, 2023).

1.4.5 Self-Determination Theory (SDT): The Motivation

SDT locates basic psychological needs—autonomy (volition/voice), competence (effectance in language/academic discourse), and relatedness (belonging)—as the proximal gate through which identity-laden appraisals become behavior (Ryan & Deci, 2020). When needs are supported, regulation is autonomous and aligns with approach coping (planning, instrumental help-seeking, host-norm participation), which expands near-distance, high-quality ties and keeps loneliness transient (Brown, 2009; Hendrickson et al., 2011; Jackson et al., 2013).

Volitional (self-determined) solitude fits here as an emotion/meaning-focused coping option—adaptive when chosen for restoration or reflection (Ryan & Deci, 2020; Nguyen et al., 2022)). When needs are thwarted, regulation becomes controlled; avoidant/disengagement responses (withdrawing to homophilous/far-distance support, reduced classroom voice) restrict contact opportunities and erode tie quality, increasing the likelihood that loneliness consolidates (Bilecen, 2025; Zheng & Ishii, 2023).

1.4.6 A Single, Linearized Pathway

A single appraisal-to-coping chain offers parsimony and actionability: diverse antecedents (identity/discrimination, language/academic-discourse, early-phase stress) enter through the same appraisal gate, converge on modifiable coping

choices and relationship quality, and thus translate directly into institutional levers (belonging-oriented orientation, discourse supports, peer mentoring, stigma/empowerment work). The model is used as an organizing synthesis, not as a claim of definitive causality; phase-specific and subgroup contingencies are acknowledged where evidence indicates.

2. Literature Review

Literature review synthesizes recent evidence on international-student loneliness and related constructs, with attention to adaptation processes, coping, and institutional supports. This review organizes the findings into five strands: prevalence/severity, antecedents and mechanisms, coping patterns and institutional support/practices.

2.1 Prevalence and Severity Snapshot

The BBC Loneliness Experiment data analysis in a qualitative cross-national study by Zheng et al. (2023) revealed that 96% of 521 international students who discussed loneliness experienced it while studying abroad. The students described emotional and psychological suffering and relationship challenges and social isolation and discrimination, which demonstrated both the severity and importance of their loneliness experience. Using multi-site interview data from nine Australian universities, Sawir et al. (2008) found that international students experienced loneliness during their studies at a rate of approximately two-thirds, underscoring high occurrence in higher-education contexts.

Moreover, a study by Hunley (2010) which tracked study-abroad students throughout their semester revealed that students who experienced loneliness developed psychological issues which negatively affected their academic performance. Research synthesis studies demonstrate that students who experience loneliness develop higher levels of anxiety and depression while showing weaker social and academic integration. In a study by Su and Flett (2024) it was found that international students in Canada who studied abroad during the COVID-19 pandemic experienced increased loneliness and adaptation challenges while the researchers.

According to research conducted in East Asian countries, international students from various countries experience loneliness at similar rates. The ULS-6 survey conducted with 529 students from 83 countries in China showed that students experience loneliness (Yuan et al., 2024). While Zheng and Ishii (2023) examined Japanese and U.S. university students to understand how loneliness affects their support-seeking behaviors and cross-cultural adaptation processes in East Asian university environments. The research shows that students who experience loneliness develop depressive and anxiety symptoms which negatively impact

their academic performance and social integration (Hunley, 2010).

Additionally, studies from other regions have yielded similar findings. Research from Portuguese-speaking Europe indicates that African international students studying in Portugal report significantly higher levels of loneliness compared to local students (Neto, 2021). In South Africa, international students experience loneliness due to racialized interactions and exclusionary cues, "disconnects" in information and support pathways, and unfamiliar registration systems (e.g., visa processing, enrollment) (Kasese-Hara & Mugambi, 2021).

2.2 Drivers of International-Student Loneliness

2.2.1 Early Adjustment Stress

The process of moving to a new country poses academic and social challenges and is associated with increased feelings of loneliness during the first few months of stay. Hunley (2010) used longitudinal data to show that students' psychological distress predicted subsequent increases in loneliness while their academic performance declined throughout the semester. Qualitative/mixed-method syntheses likewise characterize the initial months as the steepest adjustment window in which homesickness, uncertainty about norms, and social self-doubt are most salient (Sawir et al., 2008). Students from East Asia often seek emotional support from far-distance (home-context) during their first months abroad, a pattern associated with increased loneliness and poorer psychological adaptation (Zheng & Ishii, 2023).

The Chinese international student population, in particular, has reported higher levels of loneliness alongside lower power status and more frequent discrimination and social rejection (Yuan et al., 2024). Kasese-Hara and Mugambi (2021) describe how administrative processes such as visa processing, registration, and housing arrangements compound into "institutional loneliness" during the initial arrival phase. The complexity of visa procedures, registration, housing allocation, and tuition payment processes, coupled with fragmented information, creates dual pressures of practical obstacles and emotional isolation.

2.2.2 Language and Academic-Discourse Barriers

Students who face language barriers and academic discourse challenges report reduced participation in classroom activities and shallow social interactions, coinciding with feelings of isolation. The research identifies this specific type of social disconnection as "cultural loneliness" because it arises when people lack their typical social bonds even when they are physically together (Sawir et al., 2008). Students often need to learn new communication methods, including taking charge in class discussions and starting conversations, to adapt to host country social expectations. Students describe discomfort when they adjust their

communication approach, yet they identify these moments as essential for their cultural adaptation (Hotta & Ting-Toomey, 2013).

In a study by Leong (2025), international students at a U.S. college reported challenges with classroom participation and academic writing, supporting the idea that language skills and academic communication standards can hinder integration into their new environment. Likewise, research conducted in multiple countries indicates that students who study abroad in Japan report higher social exclusion in contexts with group expectations and language requirements, whereas American students in the U.S. emphasize individual responsibility—patterns that coincide with increased loneliness (Ivanova et al., 2025).

2.2.3 Perceived Discrimination and Stigma

International students report increased loneliness when they perceive discrimination and accompanying social exclusion. Research conducted by Yuan et al. (2024) with Chinese international students found that those who experienced discrimination also reported higher levels of loneliness, local community exclusion, and stereotypes, which co-occurred with intensified psychological distress. People who see loneliness as a negative experience may avoid seeking professional help, potentially resulting in longer periods of social isolation (Vasileiou et al.,2019).

Parallel evidence shows that social exclusion mediates the inverse link between belonging and loneliness among international students (Kusci et al., 2023; Kasese-Hara & Mugambi, 2021; Neto, 2021). Mixed methods work in Australia further notes that racism/safety concerns compound barriers to support and belonging (Corney et al., 2024). Together, these studies indicate that social-evaluative appraisals function as proximal correlations of loneliness.

2.2.4 Friendship-Network Composition as a Contextual Driver

Friendship-network composition is linked to student loneliness, with research showing that social support perceptions statistically mediate the association between acculturative stress and emotional symptoms, as students who receive less support show stronger stress–symptom connections (Jackson et al., 2013; Kasese-Hara & Mugambi, 2021).

International students develop three types of friendships, including connections with people from their home country, their host country, and students from other national backgrounds (Kashima & Loh, 2006). In this regard, research shows that students who maintain specific friendship networks report better psychological adaptation and lower levels of loneliness (Brown, 2009; Hendrickson et al., 2011).

Students often choose to connect with co-national friends during their initial period abroad because of shared language and cultural understanding; however, heavy dependence on co-national networks can coincide with limited host culture involvement, reduced language practice, and social separation from domestic students (Brown, 2009; Hendrickson et al., 2011). Students who maintain more friendships with host nationals report higher levels of satisfaction and social connection and report lower levels of homesickness and loneliness (Hendrickson et al., 2011).

The process of interacting with host-national peers can be stressful, however, because they must adapt to different communication patterns and daily practices, which may reduce their willingness to connect (Leong, 2015). Research shows that students who struggle to create friendships between different national groups report higher levels of loneliness regardless of their network size or transnational status or partner location (Bilecen et al., 2025).

Research based on identity negotiation theory shows that students in cross-cultural settings describe "friendship dialectics," which involve changes in their communication methods, recognition of time requirements for building new relationships, and management of conflicting identities (Hotta & Ting-Toomey, 2013). Students report a transition from enthusiastic interest in host-national friendships to emotional reserve after they encounter what they perceive as brief or superficial relationships. Students find that they miss their established relationships from home because their new academic environment lacks shared experiences with peers.

However, those who maintain deep relationships with others report better social integration whereas those who have shallow relationships report feeling more isolated. Paradoxically, students sometimes experience a dual effect of being highly noticeable as international students yet feeling invisible in their academic and social environments, which is associated with decreased sense of belonging and self-esteem (Hotta & Ting-Toomey, 2013).

Students who maintain friendships with people from different countries report support and common understanding about their transition challenges, which they describe as helping them manage loneliness effectively (Kashima & Loh, 2006). Research studies have suggested, however, that the number of emotional support relationships is not uniformly protective; specific student groups such as Chinese women have reported increased loneliness even when they have more support relationships. The research is consistent with the idea that students who maintain close relationships with partners or other essential ties tend to report reduced loneliness, potentially via regular emotional support (Bilecen et al., 2024).

Research conducted in Japan and the United States indicates that students who adapt to new environments seek support from two different distances, including their host environment and their home environment. Students who sought emotional support from their home environment during adaptation reported lower levels of loneliness but showed weaker psychological adaptation in line with their home culture orientation. Students who adopt the host culture tend to seek emotional support from people who live near them (Zheng & Ishii, 2023).

2.3 Appraisal–Coping Patterns.

According to Sawir et al. (2008) and Vasileiou et al. (2019), international students demonstrate four main coping strategies, which include accommodation/distraction and active support-seeking and self-reliance/withdrawal and proactive problem-solving). However, the effectiveness of coping strategies appears to vary with students' perception of control and their access to social support resources (Sawir et al., 2008; Vasileiou et al., 2019). Students who use approach-oriented strategies to increase their contact with the host environment tend to report lower levels of loneliness but students who avoid their environment tend to report higher levels of loneliness (Hendrickson et al., 2011; Vasileiou et al., 2019).

Digital tools including smartphones and messaging platforms and campus apps and learning systems enable protective functions when users actively engage with them to establish local connections, plan study sessions and peer meetings, d access help and information and maintain nearby support networks. By contrast, the use of image-centric platforms such as Instagram and Facebook for passive engagement is associated with increased feelings of loneliness (Vasileiou et al. 2019). The Chinese cohorts demonstrate that loneliness is positively associated with problematic smartphone usage, consistent with users engaging their devices in avoidance-oriented ways (Gao et al., 2025’ Jiang et al., 2018) with research conducted by Gao et al. (2025) in China observing that international students who spent more time on their phones reported higher levels of loneliness.

2.4 Loneliness and Solitude

Research has shown that solitude functions as a coping mechanism even though many view it as an unhealthy behavior pattern. Nguyen et al. (2022) found that people who spend time alone for personal reasons were more likely to report positive effects. Students who select solitude for self-identity purposes such as reflection and work concentration tend to report better emotional stability and self-awareness and report deeper self-understanding, while people who withdraw from social contact because of fear or external pressure often report dysphoria and social withdrawal. Research with East-Asian students indicates that those who chose solitude based on personal autonomy tended to report

reduced distress but those who avoided social contact tended to report increased loneliness (Liu et al., 2024).

2.5 Institution-Level Supports, Institutional Roles and Intervention Strategies

2.5.1 University Support and Institutional Limitations

Despite substantial investment, international students under-utilize counselling and advisory services, citing cultural insensitivity, stigma around help-seeking, and access/awareness barriers (Sawir et al., 2008). Qualitative campus accounts also depict "parallel worlds" compared to domestic peers, which means under-use of those community/volunteer organizations that could provide near-distance entry points into host networks (Ivanova et al., 2025).

2.5.2 Culturally Responsive Supports

Building on the ABC model (affective–behavior–cognitive), institutions can pair emotion regulation and realistic expectation-setting with embedded social-skill/academic-discourse practice (Zhou et al., 2008). Blended programs (short in-person groups + guided online self-help) show improved interaction quality and growth of supportive ties versus self-help alone, suggesting feasibility for scale-up (Cipolletta et al., 2024). Charoensap-Kelly et al. (2025) have recommended strongly that counseling and resilience-building workshops should be culturally sensitive with the study showing that resilience building programs for international students are linked to improved coping and emotional functioning

2.5.3 Empowerment and Anti-Discrimination

Visible norms, bias-response channels, and de-stigmatizing messages are associated with lower threat appraisals and fewer help-seeking barriers. In China-hosted cohorts, psychological empowerment relates to lower loneliness partly via reduced perceived discrimination and loneliness stigma. Students with high levels of empowerment reported that discriminatory attitudes had no impact on them and that they avoided accepting negative stereotypes about loneliness (Yuan et al., 2024).

2.5.4 *Special Circumstances and Tailored Support*

Perceived housing safety, roommate fit, and clarity about where to seek help are associated with well-being and lower barriers; positioning accommodation services as signposting hubs can facilitate near-distance support.

Students who feel safe in their housing and have good roommate relationships and know where to find help tend to report better well-being while facing fewer obstacles to support. The organization of accommodation services as referral points is described as facilitating students' access to nearby assistance. Students who live near their university campus and have access to peaceful areas for

studying make up the majority of students who consider "fit" as their top priority. Here, “fit” commonly refers to proximity to campus and access to quiet/private study space (Corney et al., 2024).

Su and Flett (2024) noted that international students who came to Canada during the COVID-19 pandemic experienced more severe loneliness and adaptation challenges. When visa/immigration disruptions, pandemics, or xenophobia spikes elevate threat and push students toward far-distance reliance, rapid, multilingual, culturally informed communication and coordinated supports (safety, regulation, housing, mental-health access) are essential (Charoensap-Kelly et al., 2025).

3. Limitations

The current evidence about international student loneliness faces multiple challenges because of unbalanced sampling methods, measurement problems, design weaknesses, insufficient analysis of individual differences and insufficient social network data quality.

3.1 Geographical and Compositional Sampling Bias

The research focuses on Western locations including Europe and Australia and the United States through continent-based groupings which hide national and ethnic differences and regional support systems. The research includes Asian-host work from China and Japan, but the number of studies remains low (Gao et al., 2025; Jiang et al., 2018; Yuan et al., 2024; Zheng et al., 2023; Zheng & Ishii, 2023). Research from African and Latin-American host settings is likewise scarce, with a few exceptions (e.g., Kasese-Hara & Mugambi, 2021; Neto, 2021). This may be because Asian and other areas have fewer international students compared to Western countries.

3.2 Sample Size and Representativeness

The research findings face external validity challenges because some research use small convenience samples from single institutions and service lists with unknown or low response rates. The research population includes students who avoid services and students who face language barriers because these groups remain underrepresented in the studies (Cipolletta et al., 2024; Corney et al., 2024; Hotta & Ting-Toomey, 2013; Ivanova et al., 2025; Yuan et al., 2024).

3.3 Measurement and Cultural Adaptation

Loneliness is subjective; heavy reliance on UCLA variants (often short, English-only) with limited translation, cognitive pretesting, or measurement invariance weakens cross-study comparability (Kusci et al., 2023). Asian-host work likewise uses short forms, underscoring the need for culturally adapted items and

invariance checks (Gao et al., 2025; Yuan et al., 2024). Alsubheen et al. (2023) conducted a methodological review of published cross-language versions and found that most translations/adaptations did not fully adhere to the Beaton process (forward and reverse translation, expert review, pilot testing, etc.), further limiting the robustness of cross-cultural comparisons for the UCLA scale. Perceived cultural distance (PCD)a person-level appraisal linked to adaptations is rarely included alongside loneliness, with macro indices substituted or source of support discussed without measuring individual PCD (Malay et al., 2024).

3.4 Design Constraints and Temporality

Most studies use cross-sectional designs which prevent scientists from establishing cause-and-effect relationships and from studying how loneliness changes over time. Research studies that analyze time sequences between student distress and engagement levels during academic semesters remain scarce (Hunley, 2010; Liu et al., 2024).

3.5 Subgroup Heterogeneity and Reporting

Gender, discipline/degree, length of stay, proficiency, and nationality/SEP are often reported but seldom modelled as moderators. Evidence is inconsistent when tested. The German study by Bilecen et al. (2024) discovered gender differences in their data but Hunley et al. (2023) failed to detect any gender-related differences in their pre-specified analysis. The research field of international medical students shows associations between international student status and academic performance, but the study design prevents scientists from determining if the results stem from international student status or from specific discipline-related challenges (Gradiski et al., 2022).

Proficiency and tenure are frequently logged but not analyzed as moderators (Kusic et al., 2023; Yuan et al., 2024). A few studies have conducted more granular stratification analyses of socioeconomic background in the pandemic context (e.g., Su & Flett, 2024; Neto, 2021), indicating that these differences become particularly pronounced during crises, though they remain merely situational factors. In much of the corpus, motivation-based solitude (autonomous vs. avoidance) is either unmeasured or confounded with "loneliness/being alone," precluding tests of their distinct associations with adjustment.

3.6 Social Network Measurement Limits

Much of the literature counts ties rather than capturing their role/quality, origin, and formation difficulty. Counts dominate over role/quality, origin (near vs. far), reciprocity/strength, and formation difficulty. Quality/role (e.g., a co-located partner) relates more strongly to loneliness than size; difficulty forming cross-/host-national ties is an independent correlate, but most surveys lack these fields

(Bilecen et al., 2024, 2025; Zheng & Ishii, 2023).

4. Discussion and Future Directions

Across global settings, international-student loneliness is common and cons equential, co-occurring with higher psychological distress and weaker acade mic/sociocultural engagement (Hunley, 2010; Jackson et al., 2013; Zheng et al., 2023), and similar patterns exist in East-Asian countries and East Asian countries, as well as African students in South Africa and Portugal (Yuan et al., 2024; Zheng & Ishii, 2023; Neto, 2021; Kasese-Hara & Mugambi, 20 21).

Figure 2 outlines a plausible mechanism in organizing the evidence: identit y/belonging pressures in cross-cultural settings (identity negotiation/social identity) shape threat/controllability appraisals, which in turn route coping —including support origin (near- vs. far-distance), approach vs. withdrawal, volitional solitude, and friendship-network role/quality—toward transient vs. persistent loneliness (Bilecen et al., 2024). Beyond prevalence, the literat ure converges on four interlocking drivers.

4.1 Early Post-Arrival is a High-Risk Window

The first weeks/months after arrival appear to be an elevated risk period. Distress rises and academic performance declines across the first semester (Hunley, 2010); mixed-method syntheses similarly describe the first months as steepest (homesickness, norm uncertainty, social self-doubt (Sawir et al., 2008). The combination of restricted social connections with students and difficulties learning the host language and adapting to institutional rules may contribute to this high-risk period.

These links are phase-sensitive and likely shaped by measurement/selection issues; near/far-distance support is operationalized inconsistently, key moderators (perceived cultural distance, host-language proficiency) are seldom modeled, and many studies are cross-sectional, limiting causal inference (see Limitations). The relationship between lower student engagement and loneliness development remains unclear, as students might experience loneliness before or after their engagement decreases, and distant support usage could indicate pre-existing avoidance behaviors or stronger home culture ties.

4.2 Perceived Discrimination and Stigma

Research evidence shows that people who experience identity threats and discrimination tend to withdraw from social interactions, and this is associated with increased feelings of loneliness (Sawir et al., 2008; Zheng et al., 2023). A study of Chinese students in China shows that students with lower psychological

empowerment reported more discrimination and loneliness stigma, which in models was associated with higher levels of loneliness via social evaluation (Yuan et al., 2024). The implementation of anti-discrimination messages and empowerment-based environments with clear reporting channels and stigma reduction initiatives may help reduce this pathway. Research studies need to verify how perceived cultural differences and host community standards affect discrimination effects, but such investigations remain scarce. The measurement of discrimination needs to be distinguished between general rejection and discriminatory treatment.

4.3 Language and Academic-Discourse Barriers

Students who face language and academic-discourse challenges experience reduced participation and lower control over their environment, which may hinder their ability to use approach coping strategies (Brown, 2009; Jackson et al., 2013). Research participants described "cultural loneliness" when, despite co-presence, they failed to establish meaningful bonds with others, and costly shifts toward host-norm styles (e.g., greater classroom assertiveness) as turning points (Hotta & Ting-Toomey, 2013; Leong, 2015; Sawir et al., 2008).

Cross-country studies indicate that international students in Japan often face stronger language and cultural barriers than American students, which authors attribute in part to different social norms: stronger conformity norms/language thresholds in Japan vs. greater emphasis on individual initiative in the U.S. (Ivanova et al., 2025; Zheng & Ishii, 2023). Importantly, "language barrier" often bundles proficiency, academic-discourse efficacy, accent bias, and participation affordances; proficiency could be treated as a moderator, adopt test phase-specific moderated mediation (e.g., proficiency × perceived cultural distance), and add cross-language checks to clarify for whom/when language constrains engagement.

4.4 Friendship-Network

The composition of friendship networks together with their accessibility is associated with loneliness levels, as students who have more host-national friends and better-quality relationships with them tend to report less loneliness than students with larger friend networks (Bilecen et al., 2024; Hendrickson et al., 2011; Kashima & Loh, 2006). "More ties" is not uniformly protective—subgroup analyses show counts can correlate with higher loneliness (e.g., among Chinese women), and difficulty forming cross-/host-national friendships emerges as an independent correlate net of size/transnationality (Bilecen et al., 2024, 2025).

Students who maintain strong ties to their home culture tend to seek support from distant relationships, which may provide comfort but is associated with weaker

psychological adaptation to the new environment (Zheng & Ishii, 2023). However, social network segregation may sometimes stem from school housing arrangements (e.g., international students residing in the same dormitory), leading to higher proportions of home-country social networks.

4.5 Evidence-Supported Protective Processes

4.5.1 High-Quality Proximal Ties (Quality > Quantity)

Lower loneliness is more strongly associated with a higher host-national friend ratio and the role/quality of ties (e.g., a co-located "anchor" partner/close friend) than with raw network size; heavy reliance on conational ties is emotionally soothing early on but can narrow host-context engagement (Bilecen et al., 2024; Hendrickson et al., 2011; Kashima & Loh, 2006).

Estimates may conflate influence (ties change loneliness) with selection and structural opportunity (housing/course tracking/language gates shape whom students can meet). Anchor-tie effects may partly reflect pre-existing social capital or traits (e.g., planning, extraversion). Students could focus on building one or two strong relationships with people who are easily reachable (e.g. classmates/roommates) through casual interactions at their own speed before they decide to meet more people.

4.5.2 Approach-Oriented Strategies and Participation Efficacy

Active support-seeking and proactive problem-solving, coupled with structured language/academic-discourse practice (e.g., participation scaffolds, small-group work), align with lower loneliness via higher perceived controllability and engagement (Jackson et al., 2013; Leong, 2015). Students who want to participate more in class could begin with methods that feel natural to them, starting with pair or group discussions. For example, those with Asian cultural backgrounds may choose to discuss with their deskmates, while Western cultural backgrounds may participate in group discussions.

When facing difficulties, they should proactively seek help and support from teaching assistants and professors. Maladaptive coping methods include helplessness and avoidance and compliance, which also involve feeling confused and unmotivated and escaping through fantasies and repetitive self-blame. However, self-report measures of "active coping" might overlap with personality and motivation; effects are likely phase-sensitive (strongest early post-arrival) and moderated by perceived cultural distance and host-language proficiency.

4.5.3 Users Enable Digital Tools to Function Through their Active Usage of These Tools

Digital tools (smartphones/messaging platforms) can enable protective processes when used actively initiating local contact, seeking help/information, and

sustaining near-distance support; conversely, social comparison on platforms (e.g., Instagram or Facebook) intensifies loneliness. (Vasileiou et al., 2019). International students can leverage the benefits of digital platforms by making video calls with family and friends (preferably host country). If passive screen scrolling worsens mood, then they should take short breaks or switch to other activities (read some books). However, it is noted that social media use does not necessarily imply social comparison; subsequent research should carefully distinguish specific methods of social media usage.

4.5.4 Source of Support and Orientation

Support origin matters: stronger home-culture orientation predicts more far-distance emotional support (often linked to lower loneliness yet weaker psychological adaptation), whereas host-culture orientation aligns with near-distance support (Zheng & Ishii, 2023). Kit is necessary to keep far-distance comfort but set a weekly target for near-distance support (e.g., one local shared activity), gradually shifting the mix toward host-context contact. On the other hand, the "comfort–investment" trade-off can reflect both strategy and environmental factor (e.g., lack of access to host peers). If access to host peers is low, then the pattern should be treated as a constraint, not a failure; access should be addressed first (report to the institution).

4.5.5 Clarifying the Solitude Boundary

Students should view solitude as a neutral factor which does not affect their motivation. People who choose to spend time alone for self-determined goals will use this time to regulate their behavior and think about themselves, but avoidant/non-volitional time alone is associated with social isolation and increased feelings of loneliness (Nguyen et al.,2022; Thomas & Azmitia, 2019). Accordingly, volitional solitude is better treated as a coping strategy rather than a symptom, and simple "time alone" should not proxy loneliness. To reduce construct blur, it is needed to pair a validated loneliness scale with a brief solitude-motivation module and note purpose/after-affect and digital social engagement, enabling tests of when solitude is protective versus risky.

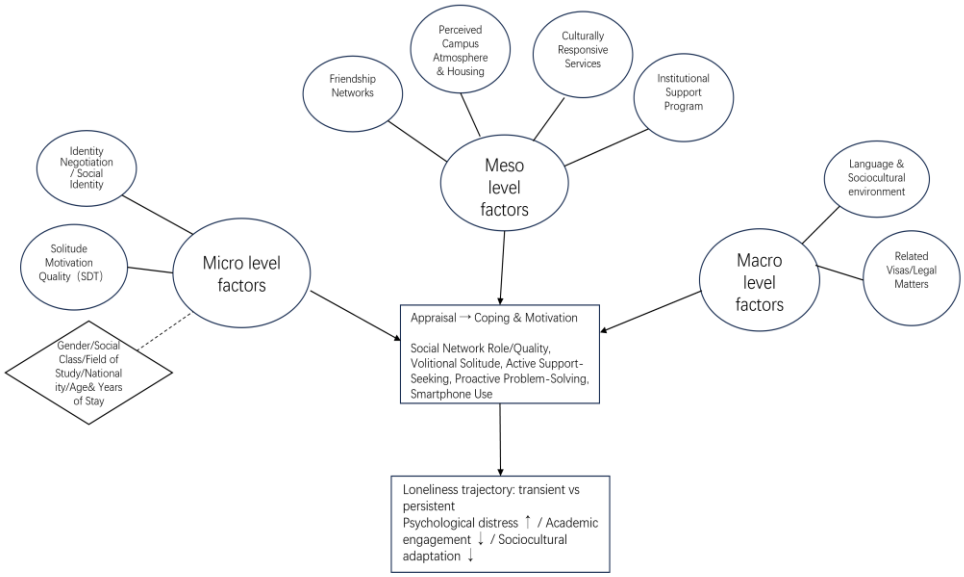

Figure 2: Arrows denote associations (not causation), typically strongest in the first 0–8 weeks post-arrival. The center box is the appraisal → coping gate. The diamond lists possible moderators

4.6 Institution-Level Supports: Evidence vs. Proposals

The essential nature of institutional support strategies remains underused, mainly because of cultural sensitivity concerns as well as mental health stigma and service accessibility challenges (Sawir et al., 2008). Institutions should enhance their awareness of supporting international students to adapt to the emerging trends in future study abroad.

4.6.1 Mechanistic Anchor

Along the identity → appraisal (threat/controllability) → coping pathway, useful practices include (i) lower perceived threat/raise controllability, (ii) shift support from far- to near-distance where feasible, and (iii) seed high-quality, co-located "anchor" ties, while normalizing volitional solitude. Mandatory activities for international students require justification and choice elements; otherwise, they risk being perceived as controlling, thereby inhibiting the process of internalization (from external to internalized/integrated).

4.6.2 Early Guidance and Financial Support

In light of the early post-arrival "risk window," institutions may wish to consider a gentle, one-path onboarding that brings visa/registration/housing steps together and offers inclusive cues (invited voice, brief norm-coaching in classes), helping early transitions feel more navigable (Kasese-Hara & Mugambi, 2021). It can also be helpful to view financial strain as loneliness-relevant rather than

purely economic; brief intake checks for financial stress, clear fee/aid information, and warm referrals to emergency grants or work-rights/budgeting supports can preserve participation and everyday contact opportunities (Neto, 2021).

4.6.3 Belonging-Focused Orientation and Peer Mentoring

Early, low-burden, repeated small-unit contact (study circles, structured group tasks) plus bridge roles (peer mentors with regular check-ins, shared coursework, co-located meetups) are linked with higher participation efficacy and near-distance support in the first semester (Hunley, 2010; Sawir et al., 2008). Under-use of community/volunteer groups argues for community gateways to reduce "parallel worlds" (Ivanova et al., 2025).

4.6.4 Language and Academic-Discourse Supports

Embedding participation structures, interaction feedback, and assessment transparency raises controllability appraisals and engagement, nodes linked with lower loneliness (Jackson et al., 2013; Leong, 2015; Zhou et al., 2008).

4.6.5 Anti-Discrimination, Destigmatization, and Empowerment

Visible norms, bias-response channels, and destigmatizing messages are associated with lower threat appraisals and fewer help-seeking barriers. In China-hosted cohorts, psychological empowerment relates to lower loneliness partly via reduced perceived discrimination and loneliness stigma (Sawir et al., 2008; Yuan et al., 2024). During crises, rapid, multilingual, culturally informed communication is essential (Charoensap-Kelly et al., 2025).

4.6.6 Low-Intensity and Blended Care

Brief, scalable supports (guided self-help, micro-interventions) suit early high-volume need and fit stepped-care; blended formats (short in-person groups + guided online modules) improve interaction quality and supportive-tie size versus self-help alone (Cipolletta et al., 2024; Jackson et al., 2013).

4.6.7 Housing as Ecological Lever

Perceived housing safety, roommate fit, and clear help-seeking routes are associated with well-being and fewer barriers; accommodation services should be positioned as signposting hubs to near-distance support (Corney et al., 2024). Housing international and local students together is associated with fewer home-country–only circles.

4.6.8 Crisis-Responsive Systems

Global crises (pandemic restrictions, visa/finance shocks, xenophobia spikes) reshape opportunities for near-distance ties and appraisals of controllabilit y. In INT/SIT terms, they heighten identity threat and belonging uncertain

ty; in SDT terms, they thwart relatedness/competence and channel avoidance coping. When disruptions elevate threat and push far-distance reliance, then pair clear, rapid, multilingual updates (safety/regulations/housing/mental-health access) with empowerment and anti-discrimination efforts to preserve pathways into near-distance ties (Charoensap-Kelly et al., 2025; Zheng & Ishii, 2023).

4.6.9 Design Targeted Programs for ABC Dimensions

Schools can design an intervention sequence based on the ABC model for orientation and the first six weeks of support: A (Affective) normalizes loneliness/stress through multilingual materials and teaches brief emotion regulation techniques; B (Behavioral) arranges "close proximity" peer/TTA pairings and situational practice through low-threshold group tasks and classroom participation scaffolding; C (Cognitive) aligns academic and social expectations, clarifies classroom/writing norms, and outlines support pathways (Zhou et al., 2008).

4.6.10 Implementation and Evaluation

A pragmatic *screen → match → step-care* model at arrival—brief screens (loneliness, participation efficacy, access barriers), tailored signposting to discourse supports/bridge roles/low-intensity care, pre-specified escalation—can be tested via cluster/stepped-wedge rollouts with short-interval follow-ups. Then track support origin (near/far), tie role/quality (incl. anchor ties), classroom participation/efficacy, and loneliness, using bilingual measures and, where feasible, cross-language invariance checks.

4.7 Directions for Future Research

4.7.1 Broaden Contexts and Samples

Research should extend beyond Anglophone hosts to include underrepresented regions (e.g., Africa, Latin America, Middle East) and multi-site designs that allow comparisons across nationality clusters and social backgrounds. Comparative sampling that includes students less connected to services will reduce selection bias and clarify how local norms and structures shape loneliness and coping.

4.7.2 Model Heterogeneity and Boundary Conditions

Future studies ought to pre-register moderator tests for discipline/field of study, gender, nationality clusters, host-language proficiency, length of stay, perceived cultural distance (PCD), and socioeconomic position. Analyses should probe mediated moderation (e.g., proficiency × PCD → loneliness via participation efficacy/host-national friend ratio) to specify *for whom* and *when* risks and protections operate (Yuan et al., 2024).

4.7.3 Strengthen Measurement and Cultural Validity

Current work over-relies on the UCLA Loneliness Scale (often short, English-only) with scant translation and measurement-invariance reporting, limiting cross-cultural validity (Jackson et al., 2013). A brief, culturally responsive scale tailored to international students is warranted. An alternative approach involves forward–back translation with cognitive interviewing across languages to reduce cultural bias. Loneliness should be measured separately from solitude motives by adding a brief autonomous vs. avoidant module that also logs purpose, post-solitude affect, and whether online social interaction occurred. The Motivation for Solitude Scale – Short Form (MSS-SF) developed by Thomas & Azmitia (2019) may serve as a reference for future research distinguishing between solitude and loneliness.

4.7.4 Timing-Attuned and Mixed-Methods Designs

Short-interval longitudinal, diary/EMA, or dynamic panel approaches from arrival can capture phase-specific change and adjudicate selection vs. influence (Hunley, 2010). A practical plan is to follow one cohort across the first year at four points (arrival, 6–8 weeks, 6 months, 12 months), with a brief 7-day diary at each point. Use a short loneliness scale that is comparable across time points, analyze change with standard longitudinal models, and—optionally—add a small interview sub-study to explain why some students' loneliness rises or falls (e.g., finances, partner). With consent, simple aggregated app/phone indicators (e.g., counts of local messages vs. passive scrolling) can strengthen the timing evidence with very low burden.

4.7.5 Understudied Relational and Digital Domains

Two domains need targeted attention: (1) intimate/anchor relationships (partner co-location, dyadic quality) and their role in buffering *persistent* loneliness—evidence remains scarce and mostly cross-sectional (Bilecen et al., 2024); and (2) smartphone/online use beyond "problematic use," distinguishing active, connection-building behaviors from passive, avoidance-oriented engagement—current findings are limited and largely correlational (Gao et al., 2025; Jiang et al., 2018).

4.7.6 Understudied Heterogeneity

Priorities include planned moderation by discipline/field, gender, nationality/social background/SES, host-language proficiency, perceived cultural distance (PCD), and length of stay.

4.7.7 Intervention Evaluation and Reporting

It is important to evaluate common supports with short-interval follow-ups, and pre-register moderators—discipline, gender, nationality/social background, language, PCD—to quantify heterogeneous effects; report loneliness plus

participation efficacy, tie quality, support origin, and basic implementation metrics (Charoensap-Kelly et al., 2025).

5. Conclusion

This critical narrative, theory-informed synthesis indicates that international-student loneliness is both prevalent and consequential. Evidence coheres around four interlocking drivers: acculturative stress and early adjustment risk; identity threat and discrimination that channel appraisals toward low controllability and withdrawal-leaning coping; language and academic-discourse thresholds that depress participation; and friendship-network composition and role/quality—especially a higher host-national ratio and nearby, dependable close ties—mattering more than size.

Support origin differentiates trajectories (home-context remote support may co-occur with lower loneliness yet weaker local adaptation, whereas host-context local support aligns with engagement). Solitude is best treated as motivationally neutral: volitional (autonomous) solitude can be adaptive, whereas avoidant solitude aligns with distress.

On the student side, strategies that increase perceived controllability (clear participation frames, low-stakes small-unit tasks) and cultivate nearby high-quality ties are consistently associated with better outcomes; institutions can complement these with belonging-focused orientation/mentoring, discourse scaffolds, anti-discrimination/empowerment signaling, low-intensity blended care, and by reducing structural segregation that limits host-tie opportunities.

This review contributes a mechanism-based framework—identity safety → appraisal (threat/controllability) → coping quality—that distinguishes loneliness from volitional solitude, specifies how support origin, tie role/quality, and classroom discourse efficacy shape trajectories, extends scope beyond Anglophone evidence by integrating East-Asian host contexts, and advances measurement transparency (UCLA dependence, cross-language validity, crude support counts) with a concise audit template.

Interpretation should remain cautious given heterogeneous measures, under-modeled moderators (discipline, gender, proficiency, perceived cultural distance), and predominantly cross-sectional designs; no pooled prevalence is asserted. Future work should separate loneliness from solitude motives, report cross-language validity, and employ moderator-aware longitudinal and intervention designs (e.g., phase × proficiency → controllability → engagement/loneliness), accompanied by open transparency materials to strengthen reproducibility and implementation relevance.

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Appendix A

Risk of Bias (RoB) rubric and overall judgement

This review appraised study quality across three domains anchored to established tools:

- Sampling/Representativeness: clarity of target population and sampling frame, multi-site or defined frames, sample size justification, and non-response handling.
- Measurement & Cultural validity: use of validated loneliness/related constructs, translation–back-translation and/or bilingual administration, pilot/cognitive testing, and when applicable, measurement invariance or structural validity.
- Design/Temporality & Confounding: design appropriateness (longitudinal/clear temporality preferred), key confounders measured and modelled (e.g., language proficiency, subjective cultural distance), analytic transparency.

Each domain was judged Low / Medium / High. We report an overall traffic-light judgement (Low / Moderate / Serious) based on pre-specified rules (not a numeric score): Low = all Low or 2 Low + 1 Some; Moderate = 1 High + 2 Low or 2 Some + 1 Low; Serious = ≥2 High or any fatal flaw in B (e.g., undefined loneliness or English-only in multilingual samples with no adaptation).

Synthesis procedure (theory informed thematic synthesis)

This review conducted a theory-informed thematic synthesis in three stages.

(1) Open coding of findings text, qualitative excerpts and quantitative effect sentences
(2) Built descriptive themes by grouping related codes into code-families and giving each theme a short keyword label and a one–two sentence definition.
(3) Axial mapping to four lenses—Identity Negotiation Theory (INT), Social Identity Theory (SIT), Coping (CO; problem-/emotion-/avoidance), and Self-Determination Theory (SDT: autonomy, competence, relatedness). We used concise tags (e.g., SIT–BU/Safe, INT–ICues) to indicate directly evidenced mechanisms.