What research offers practitioners on Adolescent and Young Adult Loneliness

Intervention content, effectiveness signals, and conditions for scalable deployment

Version 0.2

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Abstract

This working, practice-oriented overview synthesises what current research says to practitioners about interventions for loneliness and social connection in adolescents and young adults. Rather than adjudicating effectiveness or delivering a final catalogue, it maps the thematic terrain practitioners consider when designing or assessing interventions. Using LLM-assisted extraction and clustering of source-linked statements, it organises evidence across components, mechanisms, delivery contexts, and measurement signals. The contribution is a provisional, evidence-informed set of criteria and key themes for analysing practicability and deployability, intended to guide subsequent cataloguing, piloting, and scale decisions while highlighting priority gaps.

The end goal of this document is to provide a practice oriented overview of intervention formats that are feasible to be deployed by a smaller or local organisation depending on available target group, intended effect and available financial and people resources, with as much of the guidance as possible based on scientific references, principles etc.

Status. This is an early working draft prepared for discussion. Content is provisional and will change. Methods include LLM-assisted extraction; errors/omissions possible. Feedback welcome on scope, criteria list, and gaps.

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1 Preamble: Scope, Positioning, and Use

1. Purpose and Status This document is a working compendium intended to delineate the practical—rather than purely theoretical—boundary of research on loneliness and social connection in adolescents and young adults. It is designed as a living resource that can be shared, annotated, and periodically updated as new evidence emerges. The synthesis will inform the "Youth" chapter of Practical Friendship; thereafter, this compendium will continue to evolve independently.

2. Positioning Relative to Conventional Reviews Most journal-based reviews prioritise macro-level abstraction and theoretical synthesis. While valuable for theory building, such approaches frequently omit operational specifications needed by practitioners (e.g., engagement protocols, delivery logistics, institutional responsibilities). By contrast, this document emphasises actionable detail: the components, contexts, and tentative mechanisms that may guide psychotherapists, social workers, educators, and programme designers in shaping concrete interventions for identifiable populations. The aim is to collate practice-relevant ideas—including promising, as-yet-partially-tested hypotheses—into a structured, navigable format.

3. Publication Intent and Citation Practice This document is not intended to be rigorously published and polished, at least not yet. However whilst exact citation rules are not followed, it is painstakingly ensured that every claim, statement or similar can be traced back to the original publication. It is thus meant to signpost through the material and support navigation to the originals. The goal is not to take undue credit for anything, but to bring things side by side and make the material accessible.

4. Objectives

- Operational objective: to establish a durable structure and an efficient workflow for ongoing updates, enabling rapid incorporation of new studies without re-engineering the document.
- Content objective: to provide an overview of the practice-relevant output of the research corpus on loneliness and social connection in adolescents and young adults, thereby supporting the design, targeting, and evaluation of interventions.
- Output objective: To provide a framework to structure, classify and evaluate intervention designs from an operational perspective. What resources does an intervention require, how many people is it designed for and what effects or outputs can reasonably be effected.

Process:

1. Selecting the papers on youth, adolescence and young adults, loneliness, social connection, friendship (about 80 papers)
2. Extracting from the papers key practical insights into markdown files
3. Extracting from the markdowns key statements by categories and subcategories
4. Grouping/regrouping/clustering statements in a large excel file of categorised statements. The **generation of the excel with the statements is the crucial step**, and will be the focus of further refinement, and manual effort.
5. Getting large research documents as overviews on the topic both from ChatGPT and Gemini Deep research and save as PDF, then extracting from those reports key statements into priorly identified clusters. This is to complement academic research for general breadth
6. Constructing section/cluster mark down files - Key statements from research - bullet point list extracted from LLM generated overview - summary text condensed from both in a 70/30 ratio. This is done mechanical for updating purposes, by copying and pasting e.g. a cluster of 12 statements into the LLM and asking it to summarise it, staying close to the original phrases, but condensing where applicable.
7. Bringing all texts together in one large file and TeX process it to provide bibliography and typesetting.

As LLMs were used at various levels both in clustering, statement extraction, text generation, etc., a certain content caveat is warranted. However the key for this document is an Excel List of about 1800 extracted statements from papers that are completely traceable via the "per paper markdowns" to the exact content of the original paper. As mentioned, the goal of this text is not absolute rigour but to give

a practitioner oriented overview of the matter with an effective and repeatable pathway for updating in a year or two years time, replacing the original text. It would be accurate to label this report more a ”computed” or ”structuredly generated” report rather than a fully human written scientific article.

There is also the idea of rather than to use flowing texts to simply keep this as a bullet point list for easier readability or better ”scanability” (faster browsing and lookup).

2 How does loneliness feel

2.1 Left out / don't belong (group gap)

- Being physically present yet socially peripheral—“alone in a crowd,” unsure where to sit, which chat to join, or how to enter existing banter. The felt signal is exclusion at the group level rather than hostility from any one person.
- This shows up in classrooms, residence halls, societies, and first-year or entry-level teams where informal norms decide who is “in.” When these micro-norms are opaque, belonging never clicks despite repeated exposure.
- Not belonging often persists even when the contact list is long; many weak ties cannot substitute for feeling part of a recognisable circle with shared jokes, rituals, and history. The mismatch is group identity, not headcount.
- Risk is amplified for youth marked as “different” by sexuality, body size, migration, language, or neighbourhood; they are more frequently placed on the outer ring and must expend extra effort to decode the group.

Sources: Verity, Schellekens, et al., 2021; Mental Health Foundation, 2019; Landry et al., 2022; S.L. Wright and Silard, 2022

2.2 No one close / can't open up (intimacy gap)

- Having plenty of acquaintances but no confidant produces a distinct loneliness: unheard, unseen, and emotionally unheld even when calendars are busy. The core lack is a safe other who can absorb unfiltered feelings.
- Without a trusted person, self-disclosure feels risky; vulnerabilities are contained or narrated strategically, which prevents relief and blocks the sense of being known. Emotional “noise” accumulates without a container.
- A single reliable tie—friend, partner, mentor, or trusted adult—buffers more strongly than adding additional casual contacts. The protective mechanism is depth (mutuality, trust), not breadth.
- In workplaces, youth can feel systematically inaudible—ignored in meetings, undervalued, or spoken over—turning everyday communication into further evidence that “no one really gets me.”

Sources: Supke et al., 2025; Mental Health Foundation, 2019; Verity, Schellekens, et al., 2021; S.L. Wright and Silard, 2022

2.3 On guard / expecting rejection

- Social perception tilts toward risk: neutral faces read as cold, delayed replies as avoidance, and ambiguous invites as conditional. The internal forecast says, “If I go, it will be awkward,” so effort is pre-emptively cut.
- This anticipatory threat reduces attempts to join, text, or follow up; opportunities shrink, then absence of response confirms the original fear. A self-sealing loop develops in which caution looks like wisdom.
- Doomscrolling and online comparison prime vigilance—others' polished lives set an unattainable baseline—raising the threshold for initiating contact. Yet the core feeling remains threat-readiness, not simple envy.

- Over time, the "don't risk it" rule generalises across contexts, turning a situational defence into a trait-like stance that makes even low-stakes contact feel hazardous.

Sources: Akram et al., 2025; Hawkley and Cacioppo, 2010; Brakespear and Cachia, 2021; F. Giordano et al., 2025

2.4 Shame & "I'm bad at people" (low social self-worth/agency)

- Loneliness fuses with a harsh self-story: "I'm unlovable," "not worth their time," "awkward by nature." These global attributions convert transient setbacks into evidence of fixed social defect.
- At the moment of approach, bids stall—messages drafted but unsent, events opened in the browser but not attended, greetings rehearsed then abandoned. This micro-paralysis protects from shame at the price of connection.
- Expectation gaps intensify the narrative: the myth of "best years" at university or early work makes ordinary struggle feel like personal failure. Shame grows when life fails to match the glossy template.
- Agency collapses into a low-control model of self ("nothing I do will work"), reducing experimentation and desensitisation opportunities. The result is fewer corrective experiences that could disconfirm the story.

Sources: Qualter et al., 2025; Hawkley and Cacioppo, 2010; Wodika et al., 2025; Oldeman, Cillessen, and van den Berg, 2023

2.5 Loss & separation grief

- Loneliness often follows rupture: friendship breakups, moving city, end of school, or the post-college dispersal of once-intense circles. The ordinary supports vanish at the same time as new demands appear.
- Coworkers or new peers may be kind yet feel qualitatively "not the same"; the missing ingredient is shared history—private jokes, implicit trust, and co-authored identity built over years.
- The pain is grief for a co-created self, not just a reduction in contacts. Ending a friendship feels like losing the version of oneself that existed in that relationship, along with the imagined future it carried.
- Nostalgia helps frame the present as temporary thinness but can also slow rebuilding if the past is idealised and current candidates are judged against an impossible standard.

Sources: Healy, 2015; Aleman, 2010; Aleman, 2010; Oakley, 2020

2.6 Overloaded, pressured & drained

- Anxiety, low mood, and poor sleep make every task heavier; outreach is often the first activity cut because it demands initiative without guaranteed reward. Social effort feels like a luxury when energy is scarce.
- Academic deadlines, financial strain, and uncertain futures (housing, work, climate) stack on top of depleted reserves, creating a chronic load that crowds out small relational risks and spontaneity.
- Disconnection and strain amplify each other: isolation reduces positive affect and practical help, which further undermines motivation and performance, reinforcing the sense that "everything takes more effort."
- Somatic load—headaches, fatigue, disrupted sleep—is common and misinterpreted as exclusively academic or workload stress, masking the social component and delaying social solutions.

Sources: Brakespear and Cachia, 2021; Fithriya, 2024; Akram et al., 2025; Ellard, Dennison, and Tuomainen, 2023

2.7 Pulling away vs choosing time alone (ambivalence & paradox)

- Avoidance protects against anticipated pain: skipping lectures to avoid sitting alone, leaving early to prevent awkward goodbyes, or "hovering" online without posting. Protection works short-term but preserves the problem.
- By contrast, chosen solitude—intentional, time-bounded, and non-ruminative—can restore focus and calm. The benefit is regulation, not isolation; it reduces noise so later contact is less daunting.
- Two truths coexist: the same person may crave closeness and feel unable to face it; be constantly "connected" yet report emptiness. The paradox is a regulation challenge, not hypocrisy.
- Intensity is situational and cyclical: day/time and activity matter (leisure often less lonely than study/work). Recognising these patterns allows scheduling that reduces predictable dips.

Sources: Brakespear and Cachia, 2021; Verity, Barreto, et al., 2023; Zabrodin Yu. M., Soldatova E. L., Andronnikova O. O., 2023; Gijsbers, Berg, and Kemperman, 2024

2.8 Exposed & performative spaces (digital & nightlife)

- Online spaces feel evaluative: curation and comparison amplify imposter feelings; conversations flatten into performance, leaving little room for messy or unedited self-presentation.
- Visibility can feel unsafe when harassment, pile-ons, or subtle contempt are plausible; self-protection narrows expression and shifts participation from authentic to strategic.
- Nightlife brings parallel exposure risks—crowding, intoxication, and threats like drink spiking—so safety becomes relational: being with trusted friends is the precondition for joining in.
- Opting out (e.g., not drinking) can create outsider status and missed bonding stories, making abstinence or caution feel socially costly even when personally wise.

Sources: Niland et al., 2015; Kross et al., 2013; MacLean, 2015

2.9 Hiding it / stigma management

- Because loneliness is stigmatised, disclosures are careful, partial, and hedged—framed as temporary, context-bound, or paired with competence claims to preserve status.
- Students and young workers manage face by invoking social credentials ("I'm usually busy"), shifting blame to circumstance, or contrasting now with an idealised past to avoid a "lonely person" identity.
- Denial and mixed narratives are common: people can both report ongoing loneliness and immediately minimise it, not as deception but as identity protection in an evaluative environment.
- Silence shields dignity short-term but removes the cues that would let others respond; the cost is fewer invitations, less support, and extended invisibility of need.

Sources: Oakley, 2020

2.10 Moments that feel right (authenticity & small buffers)

- Against the background of threat and effort, brief episodes of "the real me" with a friend land like oxygen: conversation flows, self-editing drops, and the body unwinds.
- Quality over quantity reliably steadies mood: one mutual, offline tie often outperforms broad activity metrics in reducing the felt intensity of loneliness.
- Family and peer support act as practical and emotional buffers—rides, meals, check-ins—that widen options and reduce the activation energy for social life.

- These interactions are not cures but micro-buffers that change the day's emotional climate; even short, genuine contact can reset threat expectations and make the next bid likelier.

Sources: Buijs et al., 2021; Fabijanic, Batinic, and Vrselja, 2024; Refaeli and Achdut, 2022; Alsarrani et al., 2022

3 What helps and harms

3.1 Psychological & Identity Safety

When settings are psychologically safe, young people can show up as themselves without expecting ridicule, suspicion, or penalty. Safety is active, not passive: clear "no put-downs" norms, rapid repair after missteps, and visible allies who interrupt bias make opening up feel low-risk. For students who are "the only one in the room," the social cost of a misstep is higher; safety means protection from ridicule and from retaliation, plus clear routes to escalate concerns. In classrooms, residence halls, and entry-level teams, small humiliations (eye-rolling, mockery, character slurs) teach caution; students learn to edit, withdraw, or "play small" to stay safe. Over time, a constant sense of threat becomes the default, shrinking experimentation and dulling reaching out even outside the original context. Safety is thus a precondition for contact opportunities to convert into actual relationships; without it, even rich programming generates weak uptake. Use names and pronouns correctly, and back "you belong here" with enforcement and follow-through, especially for those facing stereotypes or microaggressions.
Sources: Johnson et al., 2009; Hartup and Stevens, 1997; Helm et al., 2020; Mental Health Foundation, 2019

3.2 Emotional Attunement & Validation (one-to-one support)

Loneliness eases when someone accurately mirrors your inner state—naming feelings, staying present, and resisting premature "fixes." Power-aware listening matters—teachers, supervisors, or seniors should offer choices (when to talk, what's shared) so opening up never feels compulsory. This one-to-one holding turns strong feelings into bearable experience, enabling deeper talk and a sense of being known. In its absence—being ignored, talked over, minimized, or "cheered up" too fast—youth learn that disclosure backfires, and pain is better managed alone. One reliable listener (friend, mentor, trusted adult) outperforms numerous superficial check-ins; depth trumps breadth for affective regulation. Attunement is teachable: reflective listening, brief empathy skills, and paced self-disclosure increase the odds that early bids succeed. Without these micro-competencies, help attempts can feel transactional and inadvertently confirm isolation.
Sources: Meuwese, Cillessen, and Güroğlu, 2017; Aleman, 2010; Macdonald et al., 2023; Tesch, 1989

3.3 Friendship Quality, Reciprocity & Repair

High-quality friendships combine dependability, mutual care, and repair routines when slights occur. Honest boundary setting and apology-plus-action ("own it, fix it, follow up") keep relationships elastic rather than brittle. Make repair teachable: boundary scripts ("I like you, not this behavior"), the "own–impact–action" apology, and simple check-ins ("are we good?") keep friendships resilient. Harms concentrate where closeness is weaponized: being used, pulled into each others conflicts, or betrayed converts refuge into risk; dwelling on problems together without solutions can feel intimate yet deepen negative affect if it crowds out problem-solving. Practically, programs should pair shared activity (where care is enacted) with guided skills for conflict naming and repair; this reduces silent drift after ruptures. In adolescence and the 20s, the availability of even one sturdy close friendship protects against broader network instability. When reciprocity and repair are absent, youth infer "I'm not worth effort," accelerating withdrawal.
Sources: Healy, 2015; Johnson et al., 2009; P.C. Giordano et al., 1998; Rybak and McAndrew, 2006.

3.4 Social Efficacy & Skills for reaching out

Connection rides on small, learnable moves: initiating, joining, reading timing/cues, and pacing vulnerability. Skills need permission: if rules or gatekeepers limit autonomy, effort stalls even when skills are present. Early "wins" generate success spirals—perceived control rises, approach costs drop, and bids become more frequent. Harms cluster around rejection sensitivity and global deficit stories ("I'm bad at people"): neutral cues read as hostile, bids are aborted, and avoidance masquerades as

prudence. Starting small and building up (low-stakes invites, buddy prompts, structured small groups) plus feedback on timing and tone helps youth test—and revise—their internal forecasts. In the absence of supports, first-semester or first-job silence often hardens into habit-like withdrawal. Short, skills-first interventions work best when immediately paired with scheduled practice opportunities so intentions convert to enacted contact.
Sources: Review

3.5 Peer Norms, Inclusion Rules & how feelings and behavior spread

Peers set the rules of entry: what counts as "in," what humor is acceptable, who gets invited back. When inclusion is explicit (named norms, peer-led invitations, bystander activation), the social cost of approaching drops and shy students can try without reputational risk. Name identity-based lines: no "jokes" at the expense of race, gender, sexuality, disability, or class; make call-ins normative and rewarded. Pro-social modeling—publicly noticing newcomers, rotating speaking turns, norming call-ins over call-outs—prevents cliques from hardening. Harms emerge from exclusionary in-jokes, ridicule-as-bonding, and permissive climates for ostracism; negative affect and loneliness gather and spread through cohorts. Early corrections matter: once a "cool table" forms, switching lanes gets harder, and ambiguous slights start reading as rejection. Small-group structures with repeated contact beat vague whole-cohort mixers for shifting norms at scale.
Sources: Review

3.6 Network Structure, Roles & Participation (Bridges & Third Places)

Who you know matters, but how your ties are arranged often matters more. A protective pattern is a few dependable strong ties plus several bridges into mixed settings (clubs, teams, faith/arts spaces), with at least one role where you are expected and have a small say in decisions. Harms concentrate at the periphery: isolates and low-reciprocity positions, high churn during moves or first semesters, or echo chambers that feel busy but don't widen support. Transitions are the stress test—without intentional bridges, networks stay sparse and slow. Designing repeat, role-based participation (e.g., rostered tasks, rotating roles) creates predictable encounters that convert acquaintances into partners. For under-represented students, pair bridges (mixed groups) with affinity spaces (identity-safe rooms) so confidence and reach grow together. For minoritized youth, fragile reciprocity and lower incoming nominations mean structure and roles do the equity work that tips cannot.
Sources: Review.

3.7 Family/Household Climate & Routines (Love + Limits)

A steady home base—warmth plus boundaries—makes social risk tolerable: regular meals and sleep, help with logistics, and supporting independence check-ins lower background stress and free energy for outreach. Harsh control invites concealment; chaos (noise, crowding, inconsistent rules) erodes sleep and predictability, making approach behaviors feel costly. For 18–30s, housemate norms and partner habits are the analog: agreed quiet hours, shared meals, and transport favors quietly multiply contact opportunities. Shift from commands to choices where possible ("which night works for dinner?"); micromanagement signals low trust and pushes problems underground. Sleep and mood sit in the loop: when nights are short and irregular, threat perception and withdrawal rise; when rhythms stabilize, bids feel doable again. Family or household scaffolds that protect rest while signaling care ("love + limits") consistently show downstream social benefits.
Sources: Review

3.8 Digital Ecology & Online - Offline Pathways

Platforms shape both comparison and contact. Intentional feeds, privacy and harassment controls, and joining interest-based spaces that deliberately bridge to offline (meetups, labs, teams) convert scrolling into encounters. Harms include doomscrolling that sinks affect, performative curation that makes self-presentation feel risky, and harassment that turns visibility into threat; late-night spirals displace sleep and next-day approach. Harms target is not random; some identities carry more risk. Equip students with block/report routines and agree team norms for what happens next time. Nightlife adds a parallel exposure logic: safety is relational (trusted friends nearby), and opting out can mean missing the stories that bond groups unless alternative rituals exist. The practical aim isn't digital abstinence but

governance: time windows, content hygiene, and "online-to-IRL" ramps that make genuine contact the default.
Sources: Review.

3.9 Mental Health, Substance Use & Physiological Regulation

Mood, anxiety, and physiological load shape how social life is appraised and enacted: when sleep is short and irregular, threat detection rises, energy drops, and approach behaviors feel disproportionately costly. Treat symptoms without blaming the person for barriers they don't control; pair care plans with small context shifts (lighter weeks, quiet spaces) so energy can return. Treatable contributors (depression, social anxiety, rumination, fatigue, risky use) create feedback loops: low mood shrinks outreach; isolation then worsens mood. Helps include stepped care for depression/anxiety, brief skills for rumination and avoidance, consistent sleep timing, and low-friction exercise that restores daytime alertness. Screening is pragmatic: when symptoms are severe, relief-first (sleep/mood) is often needed before social tasks stick. Harms arise when problems are normalized as "just stress," late-night digital spirals displace sleep, or substance routines become the only social ritual. Downstream aim: improve regulation so bids feel doable and success spirals can begin.
Sources: Fithriya, 2024; Ellard, Dennison, and Tuomainen, 2023; Hawkley and Cacioppo, 2010; Brakespear and Cachia, 2021.

3.10 Material Conditions & Infrastructure (Money, Housing, Transport, Time)

Feasibility is not a mindset; it is infrastructure. Control matters as much as access—rota control, predictable shifts, and input on scheduling raise agency and make plans stick. Proximity to peers, affordable housing, safe routes, and aligned timetables decide whether contact attempts can happen often enough to take root. Helps include short commutes, reliable transport, co-located study/work and third places, and neighborhoods where lingering is safe; these produce repeated encounters that let weak ties mature. Harms come from long shifts and longer commutes, income strain that prices out social spaces, living alone without bridging routes, and unsafe local environments that make presence feel risky. Perceived poverty matters as much as income—feeling relatively deprived reduces participation unless buffered by trust and offline family/friend support. For institutions, these are changeable features of the system, not individual deficits: remove time-and-money bottlenecks, and attendance follows.
Sources: Refaeli and Achdut, 2022; S.L. Wright and Silard, 2022; Smith and Christakis, 2008; Gilsbach and Stauder, 2025.

3.11 Transitions, Onboarding & Continuity Anchors (First 90 Days)

Entry periods are network-forming windows: in the first weeks of school, campus, or a job, small structures determine who meets whom, how often, and with what early feedback. Helps include cohorting and buddies, scheduled micro-rituals (repeated small groups, rotating roles), and carry-over anchors (continuity from prior teams or interests); these reduce ambiguity and make trying feel low-risk. Harms follow "sink-or-swim" starts, administrative opacity, and early rejections without repair—youth infer "I don't belong here" and withdrawals harden. Early-state loneliness predicts later depression; transitions elevate strain while old supports recede, put supports in place in weeks 1–4, not after problems appear. The design question is simple: are there predictable, repeated contact foci in weeks 1–4 that convert intention into enacted ties?
Sources: Wei, Russell, and Zakalik, 2005; Fithriya, 2024; Akram et al., 2025; Kempnich, 2021

3.12 Meaning, Contribution & Coherence (roles and a story that fits)

Belonging lasts when participation means something: a valued role, visible contribution, and a coherent story about why one is here. Avoid token roles; give real tasks and a small circle of decisions to own—agency is part of meaning. Helps include task-linked roles (you're expected somewhere), feedback that shows impact, and identity-affirming contexts where group memberships are enacted, not just named; these sustain effort when social energy dips. Harms arise from uselessness or burden scripts ("I add nothing"), fragmented identity across contexts, and routines disconnected from purpose; in such climates, outreach decays even when skills and opportunities exist. Purpose and contribution are less a mood booster than a multiplier: they make micro-skills worth deploying and nudge attendance from optional to expected. Authentic moments with trusted others often catalyze this layer by revealing a

version of yourself that the role genuinely needs.
Sources: S.L. Wright and Silard, 2022; Buijs et al., 2021

4 How friendships form

4.1 School Structure, Class Proximity & Engineered Repetition

Schools don't just educate; they organize who meets whom, how often, and under what conditions. Fixed timetables and seating plans put the same faces next to each other day after day, turning strangers into regulars and regulars into potential friends. Teacher-assigned groups in labs, projects, and workshops create small teams where students must rely on one another, which speeds up first conversations and small acts of help. Even simple rhythms—lining up, passing in corridors, or waiting before class—offer quick, low-risk moments to say hello. When teaching moved online or into hybrid formats, students leaned even more on shared classes as a primary route to new ties, showing how much structure does the "matchmaking." The broad pattern is that exposure and repetition lower social costs: fewer decisions are needed to see someone again, so tiny exchanges accumulate into comfort. This does not guarantee closeness, but it makes contact likely and makes follow-up easier. In short: the school timetable is also a social timetable.
Sources: Gilsbach and Stauder, 2025; Verity, Schellekens, et al., 2021; Ferguson et al., 2022; Hartup and Stevens, 1997.

4.2 Propinquity & Geography

Where young people live and move shapes their friendship chances. Sharing a neighborhood, a walking route, or the same bus or train creates repeated, unplanned contact: the quick chat at the stop, the wave across the street, the shared walk home. Local "third places" like parks, small shops, or sports grounds act as recurring meeting points that keep acquaintances warm. Distance matters because it raises the cost of both starting and maintaining a tie; travel time and money compete with homework, jobs, and family routines. At the same time, the corpus notes an important nuance: friendships can survive distance when people plan for it—scheduling calls or arranging catch-ups—though dips and recoveries over time are common. Geographic absence can slip into estrangement, but it can also be repaired if both sides re-engage. Overall, propinquity doesn't create closeness by itself, but it makes friendship formation and maintenance far more likely.
Sources: Johnson et al., 2009; Aleman, 2010; Healy, 2015; Roach, 2019; Fingerman, 2009.

4.3 Similarity & Shared Interests (Homophily)

Friendships among youth often start with a simple "you too?" Shared hobbies, music, games, or sports give ready topics and clear reasons to spend time together. Similar values and attitudes lower friction: there's less to negotiate about what is "cool," acceptable, or worth doing. The corpus shows this in multiple ways—homophily in interests and identities, but also in measurable traits (e.g., achievement patterns or, in some studies, BMI). Similarity doesn't just cluster people who already agree; it also makes early talk easier and makes invitations feel safer. Identity markers (language, subculture, style) act like signals that reduce the risk of approaching. Humor and "vibe" matter here too: laughing at the same things quickly builds a sense of fit. While similarity can limit diversity, it reliably explains why certain pairs or groups form and stick.
Sources: Roach, 2019; French, Purwono, and Triwahyuni, 2011; Flashman, 2011; Schaefer and Simpkins, 2014.

4.4 Shared Activities, Co-participation & Quality Time

Doing things together is the practice field of friendship. Clubs, teams, rehearsals, and projects create repeated contact with a purpose, which builds predictability ("who shows up, does their part") and offers real-time trust tests. Over time, shared events become shared memories—stories to revisit that strengthen the bond. Activity settings also clarify roles and competencies (who organizes, who helps, who explains), which helps young people see each other as dependable partners. Yet the corpus also points beyond mere co-attendance: attentional quality matters. Being present—listening, responding, giving someone your focus—makes time together feel valuable, not just busy. In short, the strongest ties grow where participation is regular and attention is real; activity gives the reason to meet, and quality time makes the meeting count.

Sources: Hartup and Stevens, 1997; Roach, 2019; Verity, Schellekens, et al., 2021; Gilsbach and Stauder, 2025; McDonald et al., 2014.

4.5 Self-Disclosure, Trust & Support

As friendships move beyond casual contact, young people start to share more of themselves—but they do so gradually and with attention to safety and reciprocity. Studies show that when a partner responds with validation and caring, adolescents offer more reasons and richer content in discussion, even if this doesn't automatically make their moral arguments more complex (McDonald, 2014). Classic developmental work finds that compared with non-friends, friends show greater mutuality, more negotiation, and clearer task focus, and that self-disclosure becomes a defining marker in adolescence (Hartup & Stevens, 1997). Trust then rests on reliability—keeping confidences, following through, and turning up on time—which gives disclosure somewhere safe to land. Support is not only emotional; practical help during stressful periods upgrades a tie's strength and signals commitment. Many networks also stabilise around a small "support clique"—roughly five very close figures—whose membership is fairly stable year to year (Roy & Bhattacharya, 2022). Finally, young people test boundaries: they learn what can be shared, with whom, and how far; these micro-tests set the confidentiality norms that protect the relationship.
Sources: McDonald et al., 2014; Hartup and Stevens, 1997; Roach, 2019; Roy et al., 2022.

4.6 Initiation, Reciprocity & Maintenance (incl. Rituals & Shared Codes)

Friendships often begin with small opening moves—a greeting, an invitation to join, or a low-risk offer of help. Youth report common "traps" (staying silent, hiding feelings, over-caution) and "lifts" (asking to join, inviting others, being yourself without overdoing it), which can be practised in structured group work (Verity & Schellekens, 2021). Once contact exists, progress depends on balanced initiation and response: who starts, who replies, and how quickly. Communication studies show that people sometimes step up initiation (e.g., more phone calls) when ties are forming or decaying, using contact to stabilise momentum (Roy & Bhattacharya, 2022). At the same time, the boundaries of friendship are fuzzy—beginnings and endings lack clear lines compared with kin or work roles (Rybak & McAndrew, 2006). Because of this ambiguity, misreading reciprocity—assuming a level of closeness that isn't shared—can create quarrels or even dissolution (Healy, 2015). Maintenance also benefits from small, repeated practices—shared routines, catch-ups, and inside jokes—which act like a shared code that makes the relationship feel distinct and easier to resume after gaps.
Sources: Verity, Schellekens, et al., 2021; Roy et al., 2022 ;Rybak and McAndrew, 2006; Healy, 2015.

4.7 Conflict, Bullying & Repair

Conflict is part of adolescent friendship; what matters is how it is experienced and repaired. In best-friend discussions, partner-reported conflict or betrayal predicts the young person offering fewer reasons—a sign that ruptures change how openly partners engage—whereas one's own conflict report is less predictive (McDonald, 2014). Ruptures can take clearer or subtler forms: from exclusion or aggression to slow estrangement (geographic or psychological absence). Importantly, estrangement does not always mean the end; repair remains possible if contact and goodwill return (Healy, 2015). The literature cautions against treating any single feature (e.g., "conflict" or "intimacy") as decisive; overall friendship quality is a better lens (Alsarrani & Hunter, 2022). Many definitions for adolescent friendship explicitly include the ability to manage conflict, alongside support, intimacy, trust, and time spent together (Roach, 2018). In practice, apology, mutual acknowledgement, and cooperative tasks help pairs recover; when repairs don't happen, avoidance can spread—pulling in peers and altering group dynamics.
Sources: McDonald et al., 2014; Healy, 2015; Alsarrani et al., 2022; Roach, 2019.

4.8 Status, Popularity & Network Position

Friendship opportunities are not evenly distributed. Network position and reputation shape who gets invited and how fast ties accumulate. Achievement studies show that both high and low achievers tend to prefer friends with similar achievement, and that snapshot impressions can overstate how "popular" high achievers appear (Flashman, 2012). Not all visible traits translate into network barriers; for example, after controls, overweight adolescents were largely indifferent to friends' weight, suggesting

weight per se is not a simple gatekeeper (Schaefer & Simpkins, 2014). Structural processes also matter: during lockdowns, triadic closure—the tendency for a friend-of-a-friend to become a friend—was markedly lower than in hybrid conditions, showing how context reshapes who meets whom (Gilsbach & Stauder, 2025). Finally, reputation affects tolerance: honesty is foundational, and lying to a friend threatens trust, intimacy, and the willingness of others to include you (Perkins & Turiel, 2007). Together, these findings point to a field where visibility, closure opportunities, and credible behaviour amplify (or constrain) access to new and stronger ties.
Sources: Flashman, 2011; Schaefer and Simpkins, 2014; Gilsbach and Stauder, 2025; Perkins and Turiel, 2007.

4.9 Peer Influence & Norms

Peers do more than keep each other company; they shape behavior. Across studies, adolescents tend to shift toward their friends' levels of behaviors such as drinking and smoking even after controlling for background factors (Ragan & Osgood). At the same time, social network work reminds us that two processes operate together: selection (choosing similar friends) and influence (becoming more like them), and good analyses can separate these effects (Schaefer & Simpkins, 2014). High-quality friendships also seem protective: they uniquely predict fewer internalizing and externalizing problems—over and above simple popularity or number of friends (Waldrip, 2008). A practical way to read this is that group climate and norms gatekeep what is "okay," while reinforcement and imitation nudge everyone toward the group average; selection simply sets who can influence you in the first place (Ragan & Osgood). In day-to-day terms, this affects topics, humor, and risk-taking, but also prosocial habits like helping and including others.
Sources: Ragan and Osgood, 2023; Schaefer and Simpkins, 2014; Waldrip, Malcolm, and Jensen-Campbell, 2008.

4.10 Adult Mediation (Teachers/Programs/Parents)

Adults do not manufacture friendships, but they set the conditions that help—or hinder—them. Some young people describe persistent or delayed social pathways marked by anxiety about socializing and weaker skills; these cases benefit from guided practice and low-risk entry points (Howard & Bibiana, 2014). In structured dilemmas with close friends, when both partners endorse conflict resolution, adolescents show more moral reasoning—evidence that adult-led tasks can scaffold repair skills and reflective talk (McDonald, 2014). Over the longer arc, adult roles change: for instance, young adult women show modest but asymmetrical churn in close opposite-gender ties, highlighting that life stage and expectations matter (Roy & Bhattacharya, 2022). Taken together, teachers and parents influence friendship indirectly—through skills teaching, task structures that require cooperation, and expectations that make civility and follow-through the norm.
Sources: Howard et al., 2014; McDonald et al., 2014; Roy et al., 2022.

4.11 Digital Contexts & Online Interaction

Digital channels extend friendship through time and distance. When relationships are decaying or forming, some people increase calls or messages to keep momentum (Roy & Bhattacharya, 2022). During periods of online or hybrid learning, students leaned on shared classes even more as a route to new ties—showing that structured, repeated contact still drives formation even when much of it is mediated (Gilsbach & Stauder, 2025). Network shifts matter for wellbeing: having a mostly new friend group or losing most prior friends is associated with lower belonging (Ferguson & Brass, 2022). Trust remains central; betrayal can disrupt a tie and undermine confidence in one's judgments afterward (Healy, 2015). In practice, digital friendship requires attention to cadence (who initiates, who replies, how quickly) and to maintenance signals that keep the tie feeling alive between offline meetings.
Sources: Roy et al., 2022; Gilsbach and Stauder, 2025; Ferguson et al., 2022; Healy, 2015.

4.12 Transitions & Life Events (incl. Cultural/Gender)

Friendships are sensitive to change. Shifts in a person's character or conduct can end a tie even after attempts to repair it (Healy, 2015). Over distance, commitment trajectories are nonlinear: long-distance friendships may dip more often, yet can recover (Johnson & Becker, 2009). Within schools, having stable friendships is linked to greater belonging, reinforcing why continuity matters during moves or class changes (Ferguson & Brass, 2022). Across the life course, settings reorganize networks—school, work, neighborhoods, and clubs determine who is "nearby" enough to become consequential (Fingerman,

2009). Practically, transitions are easier when pairs plan maintenance (agreeing on check-ins or meet-ups) and when new settings offer repeated, structured contact to seed fresh ties while preserving old ones where possible.
Sources: Healy, 2015; Johnson et al., 2009; Ferguson et al., 2022; Fingerman, 2009.

5 How it is measured

5.1 Loneliness Scales & Item Design (Psychometrics)

Research on youth loneliness frequently uses the UCLA Loneliness Scale (Version 3) to assess perceived loneliness in school and student settings. Across different samples and repeated measurements, internal reliability is reported as high, suggesting a stable total score. When time is limited, teams also use very short tools, including the three-item UCLA version. Some population monitoring relies on a single question asking how often a person feels lonely. In practice, short forms are used to screen and monitor, while fuller scales are preferred when finer distinctions or comparisons are needed. Authors note that item wording, response options, and any reverse-scored items matter for keeping scores comparable over time. Guidance often includes clear scoring rules—whether items are summed or averaged—and how missing responses are handled to support replication. Programs sometimes combine student self-reports with teacher perspectives across years to broaden coverage. Because different reporters see different aspects of a student's life, mixing sources without explanation can confuse interpretation. Several reports also clarify that measurement can occur at multiple levels, including individual, dyad, and group, with each level answering a different question. Using the same instrument and timing across waves is emphasized to support defensible comparisons within and between cohorts. Alongside loneliness items, some studies include related relationship measures to map intimacy, support, and classroom adjustment in the same surveys. Alternative short questionnaires appear in the literature and capture similar content with fewer items when burden must be minimized. Overall, the field stresses reliable instruments, consistent wording, and transparent scoring, reserving ultra-short items for quick checks and using multi-item scales for precision.
Sources: Akram et al., 2025; Curran and Elwood, 2024; Marquez et al., 2023; Oakley, 2020; Zheng, Rollano, et al., 2024b.

5.2 Brief Screens & Single-Item Measures

Brief screening in schools and youth services relies on very short questions to quickly flag possible loneliness. Programs often use the Three-Item UCLA or a single loneliness item to keep burden low while still catching concerns. In practice, these brief tools sit at intake and early-semester check-ins so staff can see who might need extra attention. Many teams pair student screens with teacher ratings to spot cases that students under-report or minimize. Screening is scheduled in pulses, with re-screens after transitions or other risk events to catch new problems as they arise. Clear flag rules are set in advance, and each flag links to a simple pathway—from self-help information to skills groups to referral—so action is timely. Because loneliness often travels with other difficulties, brief screens are bundled with quick items on stress, low mood, sleep problems, and suicidal thoughts. Some protocols also track headaches, stomach-aches, and sleep difficulties to show when social problems may be affecting health. Digital life is included by noting how often students chat during the school day and by pairing this with a short well-being check such as happiness or a brief strengths-and-difficulties scale. Two tiny contact items—how often young people see friends in person and how often they message or call—act as maintenance signals that help explain why a score is high or improving. Staff treat these brief screens as guides for who needs fuller assessment rather than as precise measures of change. Termly routines ask schools to record who was screened and when, so coverage and follow-up are auditable. When teacher ratings and student reports both point to concern, the next steps are clearer and faster. The overall approach is light-touch, repeatable, and designed to move students toward the right support without delay. By combining short loneliness items with a small set of companion checks, schools can monitor risk while keeping the process practical.
Sources: Akram et al., 2025; Barnett, Moore, and Edzards, 2020; Booker, Y.J. Kelly, and Sacker, 2018; Zheng, Panayiotou, et al., 2024a; Zheng, Rollano, et al., 2024b.

5.3 Causal Designs & Inference Cautions

Most studies in this area rely on one-time snapshots, which describe patterns but not which factor comes first. Authors repeatedly caution that such cross-sectional designs cannot establish direction or causality. Some papers also note that building measures and testing links in the same sample limits how far results can travel. To address timing, several projects use repeated measures across waves to compare earlier and later changes. These multi-wave designs have been used to track loneliness and social support in both directions. Work on friendship networks follows students across multiple waves to see who chooses whom and how friends shape each other over time. Network studies sometimes map whole classes and use models that estimate selection and peer influence at the same time. Even with these tools, researchers note that selection and influence remain hard to separate completely. Two-wave and five-wave programs show how temporal order can be examined, while still stopping short of causal claims. Studies of first-year transitions similarly follow students from fall to spring to observe linked movements in loneliness and contact. Cross-sectional studies of social media or neighborhood context treat results as associations rather than proof of direction. Across the corpus, authors avoid strong causal language and label designs as correlational when appropriate. Opportunities for stronger identification, such as quasi-experimental changes, are rarely described and remain a gap. Clear reporting of design and number of waves helps readers match claims to the strength of evidence. Overall, the field is careful about claims, leans on repeated measurement when possible, and treats peer processes with caution.
Sources: Akram et al., 2025; Alchin et al., 2025; Ragan and Osgood, 2023; Schaefer and Simpkins, 2014.

5.4 Longitudinal Tracking & Trajectories

Longitudinal tracking uses repeated measurements to observe dips, recoveries, and longer trends in loneliness and connection. Measurement points vary from simple pre/post checks to multi-wave follow-ups, and this choice shapes which changes can be seen. Many programs track friendship dynamics directly, counting stable, new, and lost ties and calculating net gain across waves. These indicators make visible the churn of peer groups across terms and years. During big transitions such as the first year of university, average loneliness can rise, but subgroups follow different paths, including low-stable and high-increasing patterns. Some work shows that having no friends in the autumn is linked to more internalizing problems by spring. Repeated designs also examine timing between loneliness and support, with several studies reporting movement in both directions over time. Short, repeated check-ins can add event windows that capture day-to-day dips and recoveries around specific changes. To explain why trajectories shift, researchers record maintenance signals such as how often students see friends in person, how often they message or call, and levels of classmate and teacher support. Network information—size, density, reciprocity, and centrality—helps show who has access to peers and how position in the network relates to change. External social pressure and overlap in local networks can shape whether geographically close friendships are maintained. Analyses often mark "at-risk trajectories," such as persistent elevation or accelerating increases, to guide timely support. Repeated cross-sectional series show population trends but cannot reveal within-person change and may underestimate levels when participation is uneven. Panels that follow the same students over time give a clearer picture of personal change but still require careful interpretation of direction. Over one year, loneliness has been linked to later shifts in how often young people contact friends and to changes in related behaviours such as substance use. Clear scope tags—who is included, the reporter type, and wave timing—make school dashboards and comparisons more interpretable.
Sources: Ferguson et al., 2022; Smith and Christakis, 2008; Madsen et al., 2019;

5.5 Social Network Metrics & Structures

Social network tracking in schools starts by mapping who nominates whom as a friend, using counts of incoming and outgoing nominations to index acceptance and rejection. Measures also record network size and how often students keep in touch, giving a basic picture of connection. Several studies set the network boundary at the class or year group and count how many friends a student has within that setting. During online-only periods, networks became sparser and friends-of-friends links were less likely to close, suggesting fewer chances to meet through mutuals. At the same time, sharing classes—whether in person or online—still created opportunities for new ties, showing how structure guides contact. Analysts pay attention to clustering and bridging positions, but they interpret single snapshots cautiously because network prominence at one time point can be misleading. To understand why ties cluster, researchers examine similarity between students and track both who people choose and how friends

shape one another across waves. Multi-wave studies use repeated measurements to follow selection and influence side by side over the school year. Structural risk is visible when a young person reports no friends in a class, which is linked with later internalizing problems. Simple integration counts, such as number of friends in class, complement richer nomination maps. Network features are read alongside relationship quality, using short scales that differentiate best friends from ordinary friends and acquaintances. Schools also pair network indicators with outcomes such as belonging, help-seeking intentions, and confidence to support a peer. This combined view helps distinguish popular-but-fragile profiles from modest-but-reliable ones. Findings on online social capital are mixed, so teams avoid treating large online networks as protective without other context. Overall, the field links structure to student outcomes while stressing careful interpretation and the value of repeated checks over time.
Sources: Gilsbach and Stauder, 2025; Verity, Schellekens, et al., 2021.

5.6 Dyadic & Partner-Effect Models (APIM and kin)

Dyadic research treats the pair as the unit, asking how each friend's feelings and behavior relate to the other's. Studies separate my own state from my friend's state to see how each links to support, disclosure, and reasoning. Findings indicate that a partner's negative engagement can reduce the other's sense of being supported. Because friends in a pair are not independent, analyses model the within-pair similarity directly. Some work reports no gender differences in these actor and partner links. Repeated measurements within pairs examine whether loneliness and support shift together across time. Several projects report two-way movement: lower support is associated with later loneliness, and higher loneliness is associated with later lower support. Dyadic processes also include shared talk patterns such as co-rumination, which is linked to higher symptoms for both friends. The simple presence of a reciprocated friendship predicts outcomes, underscoring the value of mutual ties. Taken together, these results encourage dyadic models when reciprocity and co-regulation are central to the question. Researchers often interpret pair findings alongside individual features so the pair is not viewed in isolation. Over time, change in one partner is frequently associated with change in the other, highlighting within-pair covariance. Repeated measures help with timing, but authors remain cautious about causal direction. Reporting that names the level of analysis and the outcomes considered aids comparison across cohorts. Reviews also note varied methods and reporting, so effect sizes should be read with care.
Sources: McDonald et al., 2014; Meuwese, Cillessen, and Güroğlu, 2017; Macdonald et al., 2023

5.7 Belonging, Relationship Quality & School Climate (incl. TSR)

Belonging and relationship quality are usually described with practical subscales such as support, intimacy, trust, and how conflict is handled. Several studies also describe friendship quality through dimensions like companionship, security, and conflict, offering a rounded picture of peer ties. In practice, assessments often collect reports from both members of a friendship or from peers and teachers to broaden the view. Partner perspectives add unique information about validation, caring, conflict, and repair that a single reporter can miss. During structured tasks, feeling validated and cared for is linked to richer sharing, even if it does not shift moral sophistication. School teams track belonging alongside these relationship indicators so they can monitor social change as well as academic progress. Belonging is treated as a key outcome and context, helping to explain why similar students can thrive in one classroom and struggle in another. Measures of classroom climate and the teacher–student relationship, including closeness and conflict, are used to understand where support feels available. When loneliness is assessed in school settings, brief companion items record classmate support, teacher support, and how often students meet or message friends. This combination links everyday contact with perceived safety and trust, making results easier to act on. Using inputs from students, partners, and teachers helps triangulate who feels supported and where climate barriers lie. Adjacent constructs such as state authenticity—feeling like one's "real me" in the moment—are included when they clarify differences in connection. Programs that monitor help-seeking place belonging and perceived availability of support beside relationship quality to see whether supports are reaching students. Together, these approaches distinguish strong, supportive friendships from strained ties, without assuming that having friends always equals good quality. Because measures and reporting practices vary, comparisons across studies are made cautiously and with attention to what each tool captured.
Sources: McDonald et al., 2014; Zheng, Panayiotou, et al., 2024a; Verity, Schellekens, et al., 2021; Alchin et al., 2025.

5.8 Digital Traces & Online Interaction Metrics

Digital indicators are used as light-touch signals of how friendships are maintained between face-to-face meetings. Programs include very short items on how often students message or use social media to communicate with friends. Schools also record how often young people see friends offline so online and offline contact can be read together. During fully online periods, forming new ties was less likely, while shared classes still created opportunities for contact in hybrid settings. This pattern suggests that structured overlap continues to guide who meets whom, even when interaction is mediated. Routine monitoring includes school-day chat frequency and pairs it with a brief well-being check to keep results in context. Several studies report that simple contact counts can be misleading unless satisfaction with contact is considered. When satisfaction is added, the link between frequency and loneliness weakens or disappears in some models. Other work flags that higher online social capital can sit alongside higher loneliness, underscoring the need to interpret digital activity with care. Because much of this evidence comes from one-time snapshots, authors describe these links as associations rather than direction. In practice, digital indicators are treated as early warning signs of drift or re-engagement, not as proof of closeness. Staff read changes in messaging alongside changes in face-to-face time to understand maintenance and decay. Teams also note the context of online contact, since different settings can carry different social pressures. The overall guidance is to track online and offline contact together, pair them with simple well-being checks, and avoid over-interpreting single metrics. Interpreting small, mixed links with caution helps schools act without assuming that more online contact always means better connection.
Sources: Booker, Y.J. Kelly, and Sacker, 2018; Zheng, Panayiotou, et al., 2024a; Nicolaisen and Thorsen, 2016; Refaeli and Achdut, 2022; Fabijanic, Batinic, and Vrselja, 2024.

5.9 Equity, Subgroups & Bias Checks (+ Scope & Generalizability)

Equity-focused measurement asks whether patterns hold similarly across groups and contexts. Studies test gender differences and sometimes find effects that vary by sex or school stage, while other dyadic analyses report no gender moderation. Researchers also examine selection processes, noting that certain traits predict friendship choices more strongly for girls in some samples. To support fair comparisons, teams run equivalence checks across gender, allowing scores to be compared meaningfully. Work on cultural context reports stronger associations in higher power-distance settings, and some summaries expect especially salient links for boys. Because school systems and samples differ, authors state who was included, focusing on ages 5–18 in mainstream schools and excluding special-needs and COVID-era data in some syntheses. Where data were collected during disrupted school years, pandemic context is flagged as limiting how far findings generalize to typical terms. Reviews also note small samples, short follow-ups, and risk of bias, encouraging careful interpretation of subgroup contrasts. Reports emphasize that reporter and level vary—student versus teacher input, and dyad versus group summaries—so consistency of measurement should be checked before comparing groups. In practice, subgroup analyses are paired with clear sampling frames and exclusions, making it easier to see whether comparisons are like-for-like. Authors encourage transparent moderation tests that show where links strengthen or weaken, rather than assuming uniform effects. They also recommend marking contextual moderators, such as classroom climate and teacher–student relations, when these are part of the measurement package. When equivalence is supported, group comparisons are more defensible; when it is not, differences may reflect the tool rather than the students. Summaries advise reporting base rates and coverage, so readers can see which groups were well represented and which were not. Together, these practices help separate real subgroup patterns from artifacts of method, sample, or context.
Sources: Zheng, Rollano, et al., 2024b; F. Neto, Oliveira, and J. Neto, 2026; Ellard, Dennison, and Tuomainen, 2023.

5.10 Cutoffs, Risk Flags & Triage

Cutoffs and triage systems begin by setting clear thresholds on loneliness measures and checking whether flags persist across scheduled screens. Programs align these thresholds with difficulties that commonly co-occur with loneliness to sharpen relevance. Brief co-screen bundles include stress, depressed mood, sleep problems, and suicidal thoughts at intake and early-term checks. To limit false positives and negatives, schools rescreen at set intervals and keep short watch-lists for borderline cases. Risk is refined by combining loneliness levels with connection indicators such as classmate support, teacher support, and the frequency of offline and online contact. When a flag is raised, pathways

move from information and light support to targeted skills or peer links, and onward to referral when needed. Longitudinal work shows that students follow distinct paths—including high-increasing trajectories—so trajectory patterns matter more than single spikes. A practical marker is having no friends across a term, which is linked with rising internalizing problems and merits extra attention. Monitoring around transition points helps, because early university or similar changes often coincide with shifts in support and contact. Interventions are matched to the primary deficit: low quantity of ties calls for connection-building, while low quality calls for work on relationship skills. For safety, any flag that includes suicidal thoughts triggers safeguarding steps alongside support offers. Termly frameworks combine student screeners with teacher ratings to identify persistently lonely pupils and strained classroom relationships. School-situated checklists add brief items on classmate and teacher support and on offline and online contact, keeping social context visible. Teams refresh risk status based on persistence or acceleration over time rather than on one-off highs. This structured approach aims to act early, tailor responses, and learn from repeated checks across the year.
Sources: Akram et al., 2025; Zheng, Panayiotou, et al., 2024a; Zheng, Rollano, et al., 2024b; Zagic et al., 2022.

5.11 Dashboards, Indicators & Monitoring

Dashboards for schools bring together indicators that track students' social worlds and how these change over time. They typically combine loneliness with information about the school environment and emotional distress so patterns can be interpreted in context. Belonging and the perceived availability of support appear alongside help-seeking to show whether supports are reaching students. For peer networks, indicators count ties that are stable, new, or lost across waves and show overall network size and net gain. These network measures sit next to brief items on classmate support, teacher support, and how often students see or message friends. Read together, quick contact counts act as leading signals, while belonging and distress function as lagging outcomes. Monitoring often uses student self-reports together with teacher reports collected across multiple years to show change. Reports mark who supplied the data and at what level—student, dyad, or group—so viewers do not mix up perspectives. Many schools schedule termly screens and use them to triage pupils who appear persistently lonely or who sit in strained classroom relationships. Somatic checks, such as sleep problems or frequent headaches and stomach-aches, are included to show when social strain may link with physical complaints. Because data can come from different reporters and levels, displays note these settings and the timing of measurement to prevent misreads. The same structure allows drill-down to the classroom climate, including teacher support and whether students feel there is "someone to sit or be with." Tracking across waves makes visible where networks are consolidating or fragmenting, and whether supports are improving. This multi-domain approach lets schools pair early warning signs with slower-moving outcomes so responses can be timely and proportionate. Overall, the emphasis is on practical, repeatable indicators that show both the social context and the student experience.
Sources: Ferguson et al., 2022; Verity, Schellekens, et al., 2021; Zheng, Panayiotou, et al., 2024a; Zheng, Rollano, et al., 2024b.

5.12 Qualitative & Mixed-Methods Protocols

Qualitative and mixed-methods work asks young people to describe connection, exclusion, and help-seeking in their own words. Interviews are treated as shared conversations, with prompts that invite detailed examples rather than yes–no answers. Practitioners explain why the discussion matters and offer follow-up options to improve honesty and engagement. Studies pair interviews with short questionnaires and classroom observations so personal accounts sit within the wider school environment. Multi-informant designs include both friends and teachers because partner perspectives add unique information about care, conflict, and repair. This approach helps separate "has friends" from whether those friendships feel supportive and safe. Coding frameworks align with well-used relationship domains such as support, intimacy, trust, and harmony. Several projects track talk patterns like co-rumination, and qualitative examples clarify how dwelling on problems together relates to later distress. Researchers also explore moments of conflict or betrayal to understand shifts in safety and disclosure within friendships. Adjacent ideas such as state authenticity—feeling like one's "real me"—help explain why some students feel connected while others do not. Because subjective perceptions of safety, trust, and "good places" are often more informative than area statistics, qualitative data are prioritized for interpretation. Mixed approaches also assess family and friend support alongside neighborhood belonging to place individual stories in community context. When network studies show who becomes friends, interviews are recommended to uncover the reasons behind those choices. Many projects are

primarily quantitative, so authors present qualitative modules as complementary rather than definitive. Insights from interviews are then used to refine item wording, clarify screening schedules, and sharpen triage questions. This feedback loop keeps measurement anchored in lived experience while remaining usable for school monitoring.
Sources: Oakley, 2020; McDonald et al., 2014; Marquez et al., 2023

Part: Adolescents

6 What happens in school

6.1 Transitions & Belonging Wobbles

Belonging often wobbles when students change classes, tracks, or schools, with several studies noting a dip around these moves and recovery that depends on the local setting. Over time, researchers describe not one path but multiple loneliness trajectories in adolescence, including groups who remain low, some who increase, and some who stay chronically high. Within these patterns, one longitudinal analysis reports that girls were less likely to follow certain adverse paths, reminding us that shifts are not uniform across students. In practice, mobility and newcomer status amplify early feelings of "not fitting in," especially during the first terms after a move, when routines and relationships are still unsettled. Context matters too: acting as a language broker for family and being in a school with fewer same-ethnicity peers are each associated with more challenging belonging paths in some settings. Against the backdrop of individual change, population snapshots across decades indicate a modest rise in reported loneliness among young people, which frames school transitions within a broader generational picture. During these sensitive windows, warmer relationships with teachers and other adults tend to go along with stronger school connectedness, giving students a relational anchor while their peer world is shifting. Keeping at least one prior friendship across a move also helps many students feel steadier as they enter new classrooms and schedules. Together, these findings portray transitions as predictable stress tests for adolescent belonging, with outcomes that hinge on the balance of strain and support in the immediate environment. For teachers and pastoral staff, this suggests paying close attention to the first months, when small signals—who a student sits with, who greets them, which adult checks in—can make everyday school life feel safer. At the same time, not all churn is harmful, because some students experience the move as a chance to reset identity or find a better-fitting peer niche. Because designs and contexts differ across studies, these patterns should be read as common associations rather than fixed rules for every school. A practical takeaway is to watch for students whose belonging remains low past the initial settling period, especially when mobility, language brokering, or limited peer similarity are in play. Finally, pairing a class newcomer with at least one familiar peer or reliable adult check-in can support a smoother adjustment without overhauling existing structures.
Sources: Benner, 2011; Verity, Barreto, et al., 2023, Madsen et al., 2019

6.2 What Friendship Means at This Age

Friendship in adolescence shifts from mostly hanging out for fun or convenience toward relationships that prize closeness, loyalty, and dependable support, so adults should listen for how students describe what a "good friend" does rather than how often they meet. Several studies report that teens talk about their problems with friends more than children do, and simply "being there" starts to matter as much as giving advice, which helps explain why a friend's presence can calm everyday stress. At the same time, reliance for everyday emotional sharing moves from parents toward peers, which can leave young people feeling exposed if those peer conversations are missing or uneven. Honesty and trust become central yardsticks for judging friendships, so small breaches—like keeping a secret or telling the truth after a mistake—carry more weight than they did in earlier years. Conflict is not rare at this age, but learning to repair after arguments is a normal skill and a useful target for classroom or small-group work. The number of named friends often jumps at certain grade points and then settles, reminding practitioners not to confuse short bursts of new connections with lasting depth. Endings are also common, so it helps to normalize the idea that not every friendship is meant to be permanent, especially when interests or classes change. As adolescents grow, they judge fairness and exclusion more by context, seeing a difference between what feels acceptable inside a tight friendship group and what is fair in a team or classroom, which can clarify why the same action is praised in one setting and challenged in another. In practice, these meaning shifts create both opportunity and vulnerability: richer support is possible, but the same closeness can amplify disappointment when trust is broken. For teachers and

social workers, good questions include "Who do you turn to when something goes wrong?" and "How do you two make up after a disagreement?" because answers reveal intimacy and repair, not just contact time. It also pays to track whether a student describes friends in terms of reliability and honesty, since those cues often signal which ties are stabilizing. Group discussions that model problem-talk and fair-minded inclusion can reinforce the very qualities teens now value. These patterns are reported across different schools and samples and should be read as common tendencies rather than fixed rules for every student or setting.
Sources: Reisman and Shorr, 1978, Review

6.3 Stability, New Ties, and Net Gains/Losses

In adolescence, the social world often feels like a moving balance sheet where what matters is the net of ties kept, added, and lost, because several panels report that this overall balance tends to shift alongside how well students are doing day to day. Transitions like changing classes or moving schools usually spike this churn, so the practical question is whether new connections and kept friendships together outweigh the losses that arrive with new schedules and settings. Across studies, keeping just one or two close friendships shows up as a steadying factor during these moves, giving students a familiar base while they figure out new routines. At the same time, some churn is healthy: adding fresh connections can open doors to activities, broaden identity options, and allow movement within status hierarchies. The pattern to watch is excessive churn—runs of losses without replacements—which is repeatedly associated with greater isolation risk and the sense that no relationship "sticks." Losses also happen quietly when timetables split friends into different classes or when small disputes interrupt everyday contact, and these gaps can wear down support even without open conflict. As groups reorganize in mid-to-late adolescence, mixed-sex ties tend to appear before dating is common, signaling a normal broadening of the network rather than trouble on its own. Because not all ties carry the same weight, summaries consistently note that a quality-adjusted balance—giving more weight to closer, more reliable friends—matches wellbeing better than simple counts. In practice, teachers and social workers can track who a student keeps seeing week in and week out, who is new, and who has dropped away, then look for a positive balance over the first months after a change. A quick checkpoint is whether a student has at least one stable close tie; if not, the next steps might include low-pressure entry points to groups where replacements can form. When losses occur, it helps to engineer opportunities that make replacement ties likely—shared projects, practice squads, or lunch clubs—so churn becomes growth rather than drift. These patterns come from school panels and transition cohorts in different settings, so they should be read as tendencies and practical cues rather than fixed rules for every student.
Sources: Hartup and Stevens, 1997

6.4 Who Sits With Whom (Peer Architecture & Status)

Across secondary school, peer groups typically evolve from mostly same-sex cliques into more mixed-sex circles, with some dyads and dating pairs emerging later, so the group around a student is expected to change as they age. At the same time, broad "crowd" labels matter less in late adolescence as the influence of specific close friends grows, which means everyday behavior is shaped more by who a young person spends time with than by group stereotypes. Several studies report that like-with-like grouping strengthens from grades six to nine, so teachers often see tighter clusters around shared interests, abilities, or backgrounds during these years. Everyday routines can also tilt the landscape: practices like lining up by gender or splitting activities by sex make gender more salient and are associated with more separation along those lines. While overt physical aggression tends to fall with age, relational aggression—exclusion or rumor-spreading—appears more stable, so quiet social harm may persist even as visible conflict declines. Peripheral acquaintances play a useful role by offering entry points into activities and a place to learn local norms, which can be especially important for newcomers or students changing classes. Context also matters for judgments of fairness: adolescents often view exclusion inside a tight friendship group differently than the same behavior in a team or club, so discipline and guidance may need to reflect setting as well as action. Status hierarchies are visible early, but movement within them is possible through new activities and group memberships, giving adults practical levers to increase access and mobility. In practice, these patterns suggest scanning homerooms and lunch spaces for who sits where, how mixed the groups are, and whether school routines are accidentally reinforcing divides. Staff can create low-stakes mixed groups for projects or clubs to open pathways across boundaries without forcing friendships. Because relational aggression is easy to miss, it helps to look for quieter signs like sudden seat changes, unreturned greetings, or repeated partner

reassignments. When a student seems stuck on the edges, introducing them to peripheral peers in interest-based settings can provide safer on-ramps than pushing straight into tight cliques. Finally, remember that these are common tendencies rather than rules; the shape and timing of changes vary by school, year group, and cohort.

Sources: Ragan and Osgood, 2023, Dryburgh et al., 2024, Hitti, Mulvey, and Killen, n.d.

6.5 How Teens Explain It (Cognitive Shifts)

As adolescents move through secondary school, many begin to explain loneliness in more inward terms, pointing to personality and self-evaluation rather than only to external circumstances. Several studies report that social comparison becomes a central lens, with peers serving as the main mirror for "how I'm doing" in everyday settings. At the same time, identity work intensifies, and more time alone is linked with reflection about fit, which can make belonging feel fragile when local norms do not match a student's emerging sense of self. Older adolescents also weigh context more when judging fairness and exclusion, so the same action can be interpreted differently inside a tight friendship group than in a club or team. This growing attention to setting helps explain why rules that seem obvious to adults can strike teens as fair in one context and unfair in another. Rising peer salience during these years means acceptance signals carry extra weight, which sits alongside reports that adolescence is a peak period for loneliness. Alongside these shifts, young people move from describing loneliness as "not having friends" in general terms to focusing on the presence or absence of close, specific friendships. Meaning-making expands too: older youth reference broader social and mental health frames when they talk about feeling left out, while younger groups do so less. These cognitive changes are reflected in how students talk about agency and fit—whether they see their situation as something that can change or as a sign of who they are. For teachers and social workers, listening for attribution language and comparison talk provides quick clues about where to focus support, and clarifying norms by context can prevent misunderstandings about fairness. Because parts of this evidence come from summaries and introductions as well as age-comparative analyses, the patterns should be read as common tendencies rather than fixed rules.
Sources: Qualter et al., 2025; Hitti, Mulvey, and Killen, n.d.; Verity, Barreto, et al., 2023; Stone et al., 2025; Howard et al., 2014; Dryburgh et al., 2024.

6.6 Why It Matters Later (Grades, Behavior, Well-being)

Loneliness in secondary school is tied to concrete academic outcomes, with studies noting that chronically or increasingly lonely students show lower academic progress and are less likely to pass major exams on the first try. In everyday terms, students who report low belonging also tend to describe dips in motivation and classroom participation, which fits broader summaries linking school connectedness and positive relationships with adults to stronger mood and self-esteem. Several panels also indicate that behavior shifts alongside peer changes, including reports of rising problem behavior across early secondary years, particularly among boys and their close friends. At the same time, work summarizing school connectedness highlights that anxiety and low mood are more common when students feel little attachment to school, while supportive teacher ties are associated with better coping. Relationship quality matters for later adjustment: longitudinal work indicates that earlier attachment and caregiving sensitivity forecast later peer competence and best-friend security, and other studies tie shifts in perceived support and connectedness to changes in how lonely students feel. These patterns extend beyond the school gates, as reviews of school as a social site describe how bullying and exclusion can carry forward into adult self-concept and social functioning. Reports from wider education summaries also note that wellbeing tends to drop from early to mid-adolescence and that academic pressure can strain coping, consistent with the idea that stress levels track with how connected students feel. Putting these strands together, belonging appears to move in step with both learning and mental health indicators, suggesting that students' educational paths can be nudged over time by the climate around them. For practitioners, the practical signal is to watch combinations—slipping grades alongside reports of low connectedness, new behavior problems paired with peer churn, or talk of poor coping in high-pressure periods—because these clusters often travel together. In practice, a single dependable adult relationship at school is frequently mentioned as a buffer, and attention to the quality of close friendships helps explain why two students with the same number of contacts may show very different adjustment. These findings are associations drawn from specific cohorts and narrative summaries as well as longitudinal analyses, so they should be read as common tendencies rather than fixed rules for every setting. Even

so, they point to a workable checklist: track academic progress, behavior notes, mood indicators, and the presence of at least one stable close tie when evaluating how a student is likely to fare over the term.

Sources: Vieth, Englund, and Simpson, 2022; Benner, 2011, Landry et al., 2022, Howard et al., 2014

6.7 Who's at Risk When Things Move

When school systems move—new class, late entry, or a full school change—the profile of who struggles is fairly predictable, and several strands of research describe the same cluster of risks. Newcomers and late joiners are more likely to report low belonging in the first months, when routines are unsettled and peer groups are hard to read. Students who move schools frequently accumulate relationship breaks, which can make it harder to keep at least one steady friendship during transitions. Young people who act as language brokers carry extra strain as they juggle family needs and school demands, and this added load is associated with more difficult belonging paths. In some settings, having fewer same-ethnicity peers is linked with higher loneliness, especially early on before students find activity-based groups that fit. Distance matters too: longer home–school travel is associated with higher loneliness, likely because it limits informal time with classmates and reduces chances to join after-school activities. Risks from earlier life also show up in the peer domain, with studies noting that maltreatment and low early sensitivity forecast later peer difficulties and less secure best-friend ties. Bullying exposure—whether as victim or perpetrator—predicts later loneliness and broader adjustment problems, so past episodes remain relevant when a student enters a new cohort. A recurring descriptive marker in high-loneliness profiles is the absence of a dependable adult ally at school, which leaves students without a fallback when peer ties are thin. In practice, these factors often cluster: for example, a newcomer who also travels far and lacks same-ethnicity peers may need earlier check-ins and easy on-ramps to groups. Triage can therefore start with a few concrete questions—recent moves, caregiving or translation roles, commute time, and whether there is at least one adult who "has their back"—to identify who may need extra scaffolding. Where multiple flags are present, pairing the student with a stable peer role and a named adult contact helps convert an at-risk start into a manageable settling-in period. Because these findings come from specific cohorts and designs, they should be read as associations that highlight common patterns rather than as rules that fit every school.
Sources: Vieth, Englund, and Simpson, 2022; Verity, Barreto, et al., 2023

7 Families and Phones

7.1 From parent bonds and guard rails to peer belonging

Inclusion: restrictive vs. negotiated rules; active mediation/co-use; legitimacy/rationale; psychological vs. behavioral control.

In adolescence, patterns in close friendships often reflect foundations laid much earlier at home, with longitudinal work reporting that higher maternal sensitivity is associated with stronger peer competence by sixth grade. Related analyses indicate that early attachment forecasts the security of a teen's best-friend relationship at around age sixteen, pointing to a pathway from early caregiving to the quality of a single close tie rather than to broad adult satisfaction. Within those findings, girls were rated as more competent with peers than boys, reminding us that the same early experiences can play out differently across groups. As day-to-day emotional sharing shifts from parents to friends in the teen years, this developmental handover helps explain why thin or unreliable peer support is linked with more loneliness even when family relationships are warm. In practice, that means a student's sense of connection increasingly depends on the availability and quality of one or two trusted friends, while the home climate shapes the skills that make those ties possible. These statements describe association patterns across time rather than immediate effects, so they set boundaries on what we can infer about short-term changes in school life. They also clarify scope: the current evidence in this corpus addresses early caregiving and the parent-to-peer support shift, not specific device rules or mediation styles. Because no statements here test restrictive versus negotiated phone rules, active co-use, or psychological versus behavioral control in digital contexts, any claims about "guard rails" improving disclosure or evening peer access would fall outside the present material. For teachers and social workers, the practical read is to listen for how a young person describes early support and current best-friend security, since those cues align with the documented pathway from early care to peer competence. At the same time, recognizing that everyday reliance moves toward peers helps explain why students with otherwise supportive families can still feel lonely when those close friendships are missing or unsettled. Finally,

this section should be read as a portrait of common tendencies observable across cohorts, not as fixed rules for every family or school.
Sources: Vieth, Englund, and Simpson, 2022; F. Giordano et al., 2025, Landry et al., 2022

7.2 Surveillance & Concealment Mechanics

Direct evidence in this corpus on surveillance and concealment is limited, so this paragraph maps what is known and clearly marks what remains to be tested. Available statements indicate that adolescents manage what they share based on audience, practicing different self-presentations with peripheral versus close others, which highlights how visibility and context shape disclosure. Related findings show that judgments of exclusion depend on setting, suggesting that the same act may be read differently inside a friendship group than in a team or class, a lens that matters when messages or screenshots move between contexts. The corpus also notes that relational forms of aggression are steadier with age than physical forms, implying that subtle social harm can persist and may spill into digital spaces. When communication channels are disrupted, peer contact and friendship quality tend to drop together, underscoring the importance of access to everyday coordination with friends. Distance between home and school is linked with higher loneliness, which points to the practical role of out-of-school coordination windows for belonging. Within peer networks, young people seek both support and prominence, indicating mixed incentives around what to reveal and what to conceal from different audiences. On this backdrop, device checks, demands for account access, and punitive reactions are plausible factors that could push communication into hidden channels, but the current statements do not test these links. Likewise, hidden accounts, app switching, and "digital trust events" such as screenshots or ghosting are hypothesized pathways to secrecy and peer exclusion dynamics, yet they are not directly evidenced in the provided materials. The statement set also does not address whether evening no-phone rules isolate adolescents from group coordination or whether negotiated curfews preserve access to supportive chats. Readers should therefore treat these surveillance items as a prioritized question list anchored to audience management and context-sensitive norms, not as confirmed effects. In practice, the traceable takeaways here are the centrality of audience and setting, the persistence of relational harm across ages, and the role of ordinary communication channels in maintaining friendship quality; all other surveillance mechanics await targeted evidence before inclusion as findings.
Sources: Fingerman, 2009; Hitti, Mulvey, and Killen, n.d.; Dryburgh et al., 2024; M.F. Wright and Wachs, 2022; Zarbatany, Conley, and Pepper, 2004; Marquez et al., 2023.

7.3 Routines and Access Windows: Commute, Closures, and Yearly Rhythms

Keywords: home–school distance; time-poverty; after-school coordination; routine disruption; friendship quality; year-to-year shifts; belonging windows; (sleep/notifications = evidence gap)

Loneliness and connection in adolescence often move with daily and term rhythms: when access to peers tightens, belonging tends to sag, and when routine channels reopen, friendship quality recovers. Studies linking greater distance between home and school with higher loneliness point to time-poverty as a practical limiter of after-school coordination and informal contact. When whole-school routines were disrupted, peer contact and friendship quality dropped together, underscoring how everyday structures outside class hours scaffold connection. Year-to-year observations also note shifts in behavior across early secondary—especially among boys and their close friends—consistent with broader rhythms in how peer groups organize and strain. Within this frame, the most informative signals are about when contact is feasible and how routines enable it, rather than raw totals of time on devices or generic activity counts. In practice, this suggests watching the contact windows created by timetables, travel time, and out-of-school openings, because these windows align with reported changes in friendship quality and day-to-day adjustment. At the same time, the current corpus does not test night-time or in-bed device use, so no claims are made here about sleep-related pathways to mood or belonging. Likewise, notification pressure (read receipts, reply-time norms) is not directly assessed in the statements provided, so its role in rumination or stress remains an open question. The emphasis, therefore, is squarely on access and routine: distance that compresses free time relates to higher loneliness; disruptions that cut off everyday coordination coincide with lower friendship quality; and cohort shifts across school years travel with peer behavior. These associations should be read as descriptive patterns tied to specific cohorts and contexts, not as universal rules or proof of cause. For teachers and social workers, the traceable takeaway is to scan for time constraints and routine breaks when interpreting a student's social reports, because those constraints often co-occur with thinner peer contact. Future evidence may clarify how night use and notification norms interact with these timing effects; for now, they remain

flagged as priorities for later inclusion.
Sources: Marquez et al., 2023; M.F. Wright and Wachs, 2022; French, Purwono, and Triwahyuni, 2011; Gilsbach and Stauder, 2025; Benner, 2011; Madsen et al., 2019.

7.4 Online Contexts of Belonging and Exclusion

Online peer life sits within a broader shift in adolescence toward relying more on peers, so what happens on platforms often mirrors what happens in hallways and lunchrooms. When everyday routines were disrupted and schools closed, peer contact and friendship quality dropped together, showing that online spaces did not fully replace the informal coordination and shared time that sustain close ties. Several studies also indicate that adolescents adjust what they share by audience, rehearsing different versions of themselves with peripheral versus close others, which matters in mixed online networks where messages travel across groups. Older teens judge exclusion by context, reading the same act differently inside a tight friendship group than in a team or class, so platform and group norms shape whether online behavior feels fair or hostile. Across these years, relational forms of harm—like leaving someone out or spreading rumors—are steadier than physical conflict, suggesting that quiet social injuries can persist and spill across channels. At the same time, young people seek both support and visibility: they lean on close friends while also pursuing prominence in wider circles, a mix that can produce ties outside the inner circle and status moves that play out online as much as offline. Taken together, these patterns describe online settings as extensions of familiar peer processes—audience management, context-sensitive judgments, and enduring relational dynamics—rather than a separate social world. The present statement set does not directly test whether cyberbullying or online exclusion predicts later loneliness, nor does it evaluate whether feeling authentic online or maintaining distant ties buffers lonely periods, so those questions remain open. Likewise, there are no corpus statements on repeated online exposures shifting norms in ways that raise or lower risk; such "contagion" ideas should be treated as future topics rather than current findings. For teachers and social workers, the traceable takeaways are to attend to group context when interpreting online incidents, to watch for relational harms that fly under the radar, and to remember that closing off routine contact tends to coincide with thinner friendship quality. These associations come from specific cohorts and designs, so they should be read as common patterns rather than universal rules or proof of cause. Even with those limits, anchoring online behavior in audience, context, and routine access provides a practical guide to understanding how digital interactions can support, strain, or simply reflect adolescent connection.
Sources: Zarbatany, Conley, and Pepper, 2004; M.F. Wright and Wachs, 2022; Hitti, Mulvey, and Killen, n.d., citeHelsenVollebergh2000

8 Interventions with Adolescents (12-17)

8.1 School environment (School/Teachers/SLT)

Universal Climate & SEL Infrastructure

In this section, the locus is teachers and senior leaders, and the aim is to raise connection and reduce school loneliness through whole-cohort climate moves and embedded skills. Universal school-based programs that teach social and emotional skills are reported to improve competences and reduce anxiety/depression, with follow-ups showing effects sustained for at least six months when embedded in curricula. Several studies indicate that teacher emotional and instrumental support is associated with a better classroom environment, and that this environment—rather than direct one-to-one support—is the primary pathway linked with lower school loneliness, with effects largely "here and now." At the same time, reviews argue for universal, cohort-wide efforts delivered in schools across social classes, positioning schools as the right setting for connection-focused health education. Content guidance includes integrating friendship-skill work into lessons and pastoral care through lessons, group discussions, and campaigns that normalise trust, closeness, support, and constructive conflict. Teacher "attunement" to the class social temperature and peer networks is highlighted as enabling early responses to friendship breakdowns and scaffolding of new ties when ruptures appear. Students also report that routines such as frequent mixed group work and teacher prompts to pair/rotate and invite isolated peers help inclusion become part of everyday practice. Norm clarity is another lever: teaching legitimacy boundaries (personal choice versus unfair group-based exclusion) and using social-domain language to parse moral, social-conventional, and personal reasons can align judgments about exclusion with fairness expectations. Guidance further notes centering the emotional impact of loneliness by explicitly assessing

distress, while training teachers and peers to shape inclusive climates and leveraging youth-identified coping strategies such as distraction and cognitive change. Practice note: to connect climate work to outcomes, use a brief belonging pulse plus a teacher-support item and track attendance drift, acting quickly when repeated low pulses or drops appear. As a limits note, some findings on teacher support and climate are contemporaneous, so links should be interpreted as associations within current classroom conditions rather than long-term causal effects.
Sources: Mental Health Foundation, 2019; Morin, 2020; Madsen et al., 2019; Healy, 2015; Verity, Schellekens, et al., 2021; Qualter et al., 2025.

Friendship Skills, Repair & Targeted Support

Targeted friendship work in schools focuses on helping adolescents choose and sustain ties that fit their own motives and values, rather than staying in relationships out of obligation. Several statements emphasize coaching young people to prioritise friendships that feel enjoyable and personally meaningful, and to treat "feeling fake" as a signal to examine fit and autonomy. Assessment goes beyond simply counting friends by using a multi-dimensional view of friendship quality that highlights areas like conflict, jealousy, and healthy disclosure, which can then guide specific skill goals. Building on that, practitioners are encouraged to assess difficulties dyadically—looking at both partners' capacities—and to communicate that a healthy friendship is one where it is safe to disagree. Conflict work is framed as deliberate and constructive: giving adolescents a vocabulary for conflict styles and inviting them to use problem-solving approaches rather than avoidance or escalation. To strengthen social understanding, age-salient dilemmas can be used to practice perspective-taking and to sort out when judgments hinge on stereotypes versus behavior. Alongside social skills, guidance advises a dual focus that teaches emotion-regulation strategies for social pain while also building the practical skills needed to form and maintain connections. Endings receive explicit attention: young people are encouraged to name the kind of ending they are facing, to have their grief validated, and to plan downgrades or closures with nuance rather than blanket "be friends with everyone" messages. Across these steps, the shared aim is to align friendships with autonomy, raise the quality of daily interactions, and make repair and respectful endings routine parts of adolescents' social learning. In practice, this means using structured check-ins to surface motives, targeted exercises to rehearse disclosure and listening, and guided conversations to plan conflict repair or thoughtful stepping back when a tie no longer fits. The statements also suggest that small, concrete tasks—like practicing initiating contact or sharing a short personal update—can precede more challenging exposures, helping momentum build safely. Taken together, this cluster positions friendship quality, constructive conflict, perspective-taking, and emotionally informed repair as mutually reinforcing levers for reducing disconnection.
Sources: Alchin et al., 2025; P.C. Giordano et al., 1998; McDonald et al., 2014; Healy, 2015; Gao et al., 2017; Qualter et al., 2025.

Peer Network, Norms & Contact Engines (incl. in-school digital guidance)

In schools, peer-network and "contact engine" approaches aim to lift connection and lower loneliness by deliberately shaping who interacts, where, and how often. Several statements indicate that peer-supportive climates, buddy systems, and group activities are used to build friend support for students who feel isolated, with in-school and after-school extracurriculars linked to greater engagement and school connection. Related work reports that structured activities—especially sports—can foster cross-group friendships, so planned participation becomes a lever for mixing rather than leaving interactions to chance. At the same time, peer-led and network-based interventions are used to shift norms, with social-norms feedback and ASSIST/AHEAD-style models cited as ways to correct misperceptions and target beliefs and expectations within friendship groups. Structured intergroup contact in diverse activities is also recommended, because it is associated with lower approval of exclusion and less prejudice. For groups at particular risk of marginalization, statements support the value of LGBTQ-inclusive curricula and tailored supports to improve social integration, and frontline friendship support groups are proposed as another way to help adolescents cultivate and maintain quality ties. Schools are also encouraged to treat the digital layer as network hygiene: guidance focuses on curating feeds to reduce harmful comparison, using direct messaging with close ties, and avoiding blanket "quit" messaging in favor of healthier, relationship-building use; during isolation, assessing whether technology is being used to maintain friendships and teaching maintenance and communication skills are highlighted. Complementary classroom levers include pairing and small-group work that cue respectful talk and inclusion of sidelined peers through teacher micro-actions. Some statements further note that young

people may hesitate to leave harmful friendships because of perceived social costs, and that emphasizing reciprocity and mutuality helps frame those choices within a healthy network. Practice note: to gauge progress, schools can track participation breadth in clubs/teams, buddy uptake, and whether online coordination is converting into in-person meet-ups.
Sources: Benner, 2011; Schaefer and Simpkins, 2014; Fletcher, Bonell, and Sorhaindo, 2011; Hitti, Mulvey, and Killen, n.d.; Hall, 2024; M.F. Wright and Wachs, 2022.

8.2 Leisure environment (Community/Youth centres/After-school)

Community and youth settings aim to build connection by creating steady places for adolescents to meet, practice inclusion, and sustain supportive ties. Several statements describe extending programming to youth centres and faith settings, using peer-led activities and caregiver guidance to connect adolescents with supportive peer networks. Building on that, cooperative, non-competitive tasks and homework clubs are described as creating repeated, low-pressure contact that helps sidelined peers participate. At the same time, peers can be trained to drop prejudices and actively invite classmates who are left out, making outreach itself a lever for inclusion. Trust is also treated as an explicit topic: guidance recommends discussing expectations in friendships and the likely relational costs of deception so that norms are clear before problems arise. Related statements emphasize that participation in structured groups—both in-school and after-school extracurricular programs—promotes engagement and a sense of school connection, showing how community and school venues can work in tandem. Within these activities, structured formats such as sports are highlighted for fostering cross-group friendships, while psychoeducation on peer influence and homophily is suggested to help adolescents and parents understand why group norms matter. Taken together, the research points to a practical blend: broaden access to youth programs, use peers as active inviters, and make the content of friendships—trust, communication, and expectations—discussable. Several statements are framed as practice guidance or plausible pathways rather than tested causal effects, so they should be interpreted as actionable hypotheses grounded in observed patterns. Practice note: simple tracking of participation breadth and new-tie formation in community activities can show whether these levers are widening adolescents' supportive networks.
Sources: Alsarrani et al., 2022; French, Purwono, and Triwahyuni, 2011; Verity, Barreto, et al., 2023; Perkins and Turiel, 2007; Benner, 2011; Schaefer and Simpkins, 2014.

8.3 Home Environment (Parents/Families)

Parents and families are positioned as a daily anchor for belonging, with several statements emphasizing how home practices shape adolescents' connections. Guidance recommends using social-domain language to sort what is moral, prudential, or personal and granting autonomy in low-stakes personal areas to build trust and honesty around higher-stakes issues. Other statements highlight "love and limits": warm relationships paired with appropriate autonomy, monitoring, and consistent discipline, alongside managing the peer context by encouraging prosocial friendships, limiting unstructured unsupervised time, and connecting with friends' parents. Parents are also described as confidants who listen, offer attention and affection, and share enjoyable activities—especially when peers feel unsafe. Psychoeducation for teens and caregivers is suggested to link friendship quality—trust, closeness, support, and constructive conflict—to better wellbeing. Home discussions using multi-issue dilemmas are proposed to practice perspective-taking and reach joint agreements before conflicts escalate. Several statements address expectation-setting and skills: rehearsing first lines with trusted people and testing pessimistic mindsets are presented as ways to counter global negative expectations, while higher communication apprehension is reported alongside lower autonomy, competence, relatedness, and higher loneliness. Family-based work that strengthens positive parent–child interactions is recommended, including early efforts to reduce over-reactivity, with the aim of preventing loneliness and supporting mental health. Parents are advised to be informed about potential longer-term wellbeing concerns linked to high early social media interaction, particularly for girls. Cultural tailoring is urged: depathologize self-blame in more individualistic settings and draw on extended family or kin networks in more collectivistic ones. Several items are framed as practice guidance rather than tested causal effects, so they are best treated as actionable hypotheses grounded in observed patterns. Practice note: to keep the work focused, track a brief "parent-confidant" item and note parent–school contacts as a simple indicator of home support.
Sources: Perkins and Turiel, 2007; Rulison, Chahl, and Hoeben, 2023; Verity, Schellekens, et al., 2021; Alsarrani et al., 2022; Mental Health Foundation, 2019; Booker, Y.J. Kelly, and Sacker, 2018

8.4 Professional support (Clinical/Counsellors/Psychologists)

Clinical and counselling services focus on reducing loneliness and avoidance while strengthening connection by pairing interpersonal skill work with coping for stress or trauma. Several statements recommend targeting adolescents' communication and relationship skills while also addressing mood, with CBT-style elements used alongside friendship maintenance so that emotional pain and social functioning are worked on together. Guidance also notes the value of distinguishing shyness from introversion in psychoeducation so quiet behavior is not automatically treated as distress. For assessment, clinicians are advised to map supportive versus risky ties and use a structured checklist—support, intimacy, affection, trust, conflict management, and time—to identify strengths and gaps in a teen's friendships. In conflict, framing disagreements as opportunities to deepen a friendship is reported to nudge constructive problem-solving rather than avoidance or hostile engagement. Therapeutic engagement may be hindered by low trust or hopelessness, so statements recommend naming help-seeking reluctance and tackling these barriers directly within the relationship. Repair is not the only trajectory: practitioners are encouraged to validate and support downgrades, dormancy, or endings when a friendship no longer fits. Evidence from older adolescents and young adults indicates dyadic friendship interventions can improve connectedness and supportive behaviors, suggesting a viable format when individual work stalls. Developmentally tuned guidance also appears in the record, with clinicians urged to align expectations for what friendships provide as adolescents shift from play toward helpfulness and mutual support. In parallel, improving peer relationship quality is flagged as a prevention target where low-quality ties co-occur with eating-related risk. Screening for trauma-related symptoms and maladaptive traits is recommended when loneliness is prominent, given how these factors can complicate engagement and recovery. Practice note: use brief loneliness and symptom checks within a stepped-care pathway, adding thresholds for intensifying support and coordinating with families and schools when indicated.

Sources: F. Giordano et al., 2025; Alsarrani et al., 2022; Roach, 2019; Gao et al., 2017; Healy, 2015; Manchanda, Stein, and Fazel, 2023

8.5 Online Behaviour (Digital/Social media/Gaming)

Staff and students use online levers to increase connection while reducing cyber-harm by focusing on how adolescents relate and respond in digital spaces. Evidence emphasizes promoting authenticity in online friendships—through receptive sharing and valuing the friend—while repositioning pressure-based reasons for maintaining ties. Guidance also recommends tailoring responses by gender, with comprehensive bundles for girls and a stronger anti-cyberbullying emphasis for boys. Rather than focusing on screen-time totals, statements highlight targeting mediators such as sleep hygiene, body image, self-esteem, and coping with online harassment. Findings from young adults indicate that the quality of offline social support is more central to loneliness than online metrics like follower counts or likes. Some adolescents benefit from self-help digital hygiene, including increasing physical or social activity and, for a subset, reducing or closing social media accounts. Training adolescents in mental-health literacy and peer-support skills can improve recognition of difficulties, help-seeking intentions, and confidence to support a friend, with some gains maintained up to a year. Together, these strands point to an online approach that prioritizes healthier relationship practices, tailored harm-reduction, and strengthening offline support systems alongside digital behaviors. Practice note: set class or club group-chat norms that protect boundary setting and discourage late-night pressure to respond. Practice note: pair brief sleep-hygiene teaching with concrete harassment-coping steps during digital citizenship sessions. For monitoring, track student reports of online exclusion or harassment and whether online planning converts into in-person meetups, as indicators of reduced harm and stronger connection; adjust supports by subgroup if needed. A limitation is that part of this evidence comes from older youth and program contexts vary, so translation to mid-adolescents should be cautious.

Sources: Buijs et al., 2021; Y. Kelly et al., 2018; Fabijanic, Batinic, and Vrselja, 2024; Manchanda, Stein, and Fazel, 2023

Young Adults

9 Integration Campus and Workplace

9.1 Arrival and Induction touch points

University induction teams can foster belonging through phased induction and personal tutor contact during the transition period. Front-loaded orientation weeks that pair peer-mentor introductions with opt-out, low-pressure socials are associated with more short-term friendships and available emotional supports. Pre-arrival Facebook groups and event pages help unfamiliar peers make first contact and ease integration before they meet in person. Early routing to visible human supports—counsellors, academic support, and course leaders—gives newcomers clear help channels that align with lower stress and loneliness during induction. Onboarding designed to build early relational ties and visibility is recommended, and during relocation periods proactive check-ins are suggested to prevent withdrawal. Several accounts emphasize that campus environments rich in accessible social opportunities and support systems shape social well-being across the transition. At the same time, studies note that campus integration matters because lacking friends and confidants is aligned with higher loneliness among newcomers. Guidance also extends beyond university entry, with advice to use phased induction approaches while coordinating care pathways as student demand rises. A noted limitation is that some friendship gains from induction-week mixing may fade over 12 months, indicating the need for continuing opportunities beyond welcome week. To monitor progress, programs can track early-term participation in induction activities, tutor-contact uptake, and whether newcomers report at least one friend or confidant by the end of the first month.
Sources: Akram et al., 2025; Manchanda, Stein, and Fazel, 2023; Brakespear and Cachia, 2021; Mental Health Foundation, 2019; S.L. Wright and Silard, 2022; Hysing et al., 2020

9.2 Cohorts & Team Mixing Routines

Universities and course teams use cohort structures and small-group formats to boost connection during the first term. Early evidence indicates that hybrid or in-person seminars act as default "mixers," whereas online-only formats lack informal mingling and end the term with sparser networks. Shared foci of activity—such as tutorials and study groups—are repeatedly linked with new acquaintance formation, and group formats can leverage campus infrastructure to sustain peer ties. Network studies show that cohorts typically form and stabilize within the first term, making early mixing especially consequential for who connects and who remains peripheral. Newcomers also draw on peripheral ties—including peers, coworkers, and supervisors—for everyday information, status cues, and integration, suggesting that multiple contact points matter. Pre-arrival and early-term online forums or social media groups can operate as low-pressure bridges into societies and first meetups, complementing in-person opportunities. At the same time, some accounts argue that features of a "digital society" warrant investigation for their association with rising loneliness, underlining the value of in-person foci when feasible. These strands together indicate that designing early, repeated, and shared activity settings is associated with stronger tie formation and a more connected cohort. Practice note: track early-term participation in tutorials and seminars, simple counts of new acquaintances by week four, and conversion from pre-arrival online groups to in-person meetups to identify cohorts or subgroups needing additional mixing opportunities.
Sources: Gilsbach and Stauder, 2025; Ellard, Dennison, and Tuomainen, 2023; Kempnich, 2021; Fingerman, 2009; Brakespear and Cachia, 2021; Hysing et al., 2020.

9.3 Newcomer Actions & Norm Navigation

Newcomer actions and norm navigation are largely driven by what students do in the first weeks and by how institutions scaffold those moves. Network work indicates that early weeks are pivotal: homophily drives swift subgrouping, patterns stabilize fast, and lockdown cohorts developed networks more slowly, so embedding newcomers before groups "fix" is emphasized. Studies also report that hybrid or in-person contact early in term anchors friendships more reliably than online-only exposure. Residential and learning proximity are linked with faster bonding, especially when connection programs are embedded in campus routines and tied to peer mentoring. Accounts of "third place" programming suggest that routine, situated opportunities—rather than one-off events—help newcomers participate and make sense of local norms. Event design matters: clear structure in marketing reduces anxiety, and

attending with a peer is reported as a major facilitator compared with going alone. For international or otherwise transitioning first-years, planning acculturation and support is advised to help with separation and cultural adjustment during adaptation. Together these findings portray newcomer navigation as a mix of early timing, proximate contact, structured entry, and norm-decoding supports that align with belonging. Practice note: to close the loop, track simple early indicators—attendance at structured welcome activities, buddy-up participation, and self-reports of "met at least one or two new contacts" by week four—to identify students needing targeted outreach.
Sources: Kempnich, 2021; Gilsbach and Stauder, 2025; Ellard, Dennison, and Tuomainen, 2023; Wodika et al., 2025; Zabrodin Yu. M., Soldatova E. L., Andronnikova O. O., 2023.

10 Factors of Loneliness for Adults 18-25 (30)

10.1 Daily Habits & Social Routines (personal-influencables)

For this section, the locus is young adults themselves (with coaches/advisors in support), and the aim is to shift everyday routines toward higher-quality social exposure and lower momentary loneliness. Several studies indicate that ordinary "busy-ness" from work, children, or marriage leaves less time to cultivate intense friendships, shrinking chances to deepen ties. Being in public among strangers is associated with lower loneliness than staying at home, suggesting low-effort ambient contact can matter. Movement also aligns with relief: walking reduced loneliness more than car travel, and both were protective relative to baseline. Weekend patterns differed from weekdays, with weekends linked to lower loneliness in momentary reports. At the same time, diverging life paths—when peers move into careers or families—often coincide with "left behind" feelings and thinner contact. Family climates that prioritize lifestyle over emotional attunement can leave young adults feeling neglected even when material needs are met. Group rituals such as shared music or drinking, with mutual monitoring of pace, help maintain a synchronized emotional state that can hold a group together. Practice note: set small, recurring "out-in-public" meetups (e.g., coffeehouse study hours or walk-and-talks) to translate these patterns into repeatable habits without adding heavy planning overhead. Most findings here are correlational and context-sensitive, so they mark reliable patterns to work with rather than guarantees. For measurement, track weekly minutes in public spaces, walking time, weekend–weekday loneliness differences, and frequency of shared rituals; relate these to self-reported daily loneliness to gauge whether routine tweaks move the needle toward connection.
Sources: Aleman, 2010; Gijsbers, Berg, and Kemperman, 2024; Howard et al., 2014; Törrönen and Maunu, 2011

10.2 Digital Practices & Online Use (personal-influencables)

For this section, the locus is young adults themselves (with advisors or resident staff in support), and the aim is behavior change that improves connection and reduces loneliness by reshaping everyday digital use. Evidence indicates that greater daily time on social media and more frequent checking are associated with higher social-media addiction among students. Heavy platform visiting is also linked with lower life satisfaction in this group. Another study reports that platforms such as Facebook are not neutral backdrops; their affordances and commercial design actively shape friendship practices. Together, these statements suggest that unreflective, high-frequency use inside designed attention environments aligns with markers of poorer wellbeing and can steer how friendships are conducted. In practice, this means online contexts may structure which interactions feel salient, how quickly they escalate, and which ties get maintained versus dropped. Practice note: favor intentional "online - offline" bridges—using forums or groups to locate first meetups—over purely digital loops that never convert to real-world contact. Practice note: establish bounded "check windows" and disable nonessential alerts to reduce frequent checking, which is associated with problematic use. These studies are correlational and context-sensitive, so they indicate patterns to work with rather than guarantees for all users or platforms. Practice note (measurement): track daily time and checking frequency, plus the proportion of online contacts that convert to offline meetings, and relate these to brief loneliness or life-satisfaction check-ins to see if habits are shifting toward the aim.
Sources: Aslan and Polat, 2024; Niland et al., 2015.

10.3 Time, Workload & Money Constraints (personal circumstances)

For this section, the locus is students and early-career workers themselves, with advisors, resident staff, or line managers supporting adjustments that raise connection by easing time, workload, and

money gates. Several studies indicate that high-demand settings, stress, and academic strain align with reduced participation in shared spaces and higher loneliness. Financial insecurity is also associated with greater loneliness in young adults, although the strength of this link can soften once interpersonal factors are accounted for. Personal status and health matter: being single, unemployed, or in poor health aligns with higher loneliness, and low energy can limit the social effort needed to maintain ties. Workplace organization shapes availability for bonding; digitalization, variable contracts, task intensity, and staggered breaks fragment coworker time, curtail everyday chit-chat, and make isolation hard to spot until problems surface. Hierarchies and developmental non-alignment in work contexts can blunt intimacy and cross-level friendship, narrowing the set of viable close ties. Geographic dispersal after college further constrains forming and maintaining deep ties across distance, even when goodwill remains. Practice note: map a one-week time-and-energy budget (shifts, commute, study blocks) to identify "exposure gates" that suppress contact, then adjust one gate at a time. Practice note: where feasible, coordinate shared break windows or team overlaps to counter staggered schedules that suppress organic conversation. These are associational findings drawn from diverse contexts; effects vary by age and setting, and some attenuate after interpersonal factors are considered, so they guide targeting rather than prove causation. Practice note (measurement): track hours worked, schedule variability, commute length, a brief financial-security item, and participation in shared spaces alongside short loneliness check-ins to see whether adjustments nudge the vector toward connection.
Sources: Fithriya, 2024; Aleman, 2010; S.L. Wright and Silard, 2022; F. Neto, Oliveira, and J. Neto, 2026; Nicolaisen and Thorsen, 2016; Oakley, 2020.

10.4 Living Arrangements & Relocation (personal circumstances)

For this section, the locus is young adults and the housing or student-support teams that shape their living setup, with the aim of reducing loneliness by addressing where and with whom people live and how far they are from prior networks. Moving away from home and established relationships—especially in the first year—is consistently associated with higher loneliness, and first-year students living apart from family show heightened risk that depends on community context. Solo living and "empty-flat" periods when peers are away coincide with higher state loneliness and a perceived lack of alternatives. Housing quality, transport links, and neighborhood safety also shape connection alongside mental health, indicating that the local setting conditions everyday contact. Time spent "on the road" between locations is associated with increased momentary loneliness compared with baseline. Population data further indicate that marriage or cohabitation aligns with lower loneliness relative to being single in early adulthood. Taken together, these findings suggest that distance from prior networks, periods of residential isolation, and mobility patterns can reduce exposure to shared spaces and confidants even when motivation to connect is present. Practice note: during known "empty-flat" intervals, offer opt-in, low-stakes shared meals or floor gatherings to create predictable contact points. Practice note: for off-campus or newly relocated students, set up buddying to nearby peers or local mentors who can be reached easily when travel or distance would otherwise deter contact. These are primarily associational findings drawn from different contexts, so they guide targeting and triage rather than prove causation for any one arrangement. To link efforts to outcomes, track living arrangement type, distance from home, nights spent alone during term breaks, time spent in transit, and perceived neighborhood safety alongside short loneliness check-ins to see whether adjustments move the vector toward connection.
Sources: Fithriya, 2024; Zabrodin Yu. M., Soldatova E. L., Andronnikova O. O., 2023; Gijsbers, Berg, and Kemperman, 2024; Oakley, 2020; Mental Health Foundation, 2019; Nicolaisen and Thorsen, 2016.

10.5 Third Places, Spatial Access & Local Environment (environment)

In this section, the locus is campus services and local youth/community providers aiming to lower loneliness by shaping access to everyday "third places" and the wider local environment. Several studies report that cafés, bars, shops, and similar venues scaffold frequent peripheral encounters that buoy belonging, and opting out of these scenes can mean missing shared narratives that knit groups together. At the same time, proximity and access to green/blue spaces and well-kept public areas are linked with better wellbeing and lower loneliness, while fear of crime can dampen use of otherwise helpful spaces. Location accessibility itself matters: being able to reach varied places across the day is associated with lower momentary loneliness than being stuck in hard-to-access settings. Local ecologies also structure who is available to meet—neighborhoods, schools, and workplaces organize contact pools and thereby the chance to find similar others and form friendships. Commuting patterns shape opportunities too:

staying home or being absent from evening on-site activities is associated with thinner participation and reinforced isolation even when daytime sociability looks intact. Short-term rhythms of place coincide with felt loneliness, with weekends tending to be lower and higher temperatures linked with higher loneliness. Practice note: where safety concerns suppress use, co-locate social spaces with visible staff and good lighting, and publish clear "what to expect" event information to reduce approach anxiety. Practice note: increase low-threshold, walk-in options (e.g., common rooms with games or study nooks) near transport nodes so that those with limited time can still have brief, repeat contact. These findings are largely associational across different contexts, so they indicate where to target effort rather than proving any single environmental lever will change loneliness on its own. For measurement, track footfall and dwell time in third-place spaces, perceived neighborhood safety, distance and access to green/blue areas, commuting/attendance patterns (especially evenings), and brief weekday/weekend loneliness check-ins to see whether environmental adjustments move the vector toward connection.
Sources: Fingerman, 2009; MacLean, 2015; Gijsbers, Berg, and Kemperman, 2024; Mental Health Foundation, 2019; Oakley, 2020; Hartup and Stevens, 1997.

10.6 Institutional Offer & Access (environment)

Institutional leaders (universities and workplaces) aiming to increase connection should configure the "social offer" so it is both available and findable. Studies of first-year cohorts report that digital-only delivery coincided with fewer chances to make new acquaintances, while hybrid co-presence supported wider group formation. When daily experiences together were missing, online ties tended to lean on shared place-of-origin similarity rather than broad mixing. At the same time, the transition into university is described as emotionally and socially destabilizing, and timetable/place rhythms can create situational isolation—such as empty flats during Reading Week—even when formal activities exist. A further barrier is awareness: a notable minority of students did not know about or use campus resources addressing loneliness, indicating a discoverability and uptake gap rather than a sheer absence of provision. Evidence also points to "contact engines" the institution can run: open tables in dining halls and identity-based organizations or events, including for transfer, commuter, and older students, widen structured entry points into campus life. Together, these findings suggest that both the mode of delivery (hybrid vs digital-only) and the visibility/inclusivity of offerings shape whether newcomers actually convert presence into ties. Practice note: weight early-term schedules toward small, in-person mixers linked to online coordination, so digital channels feed—not replace—co-present introductions. Practice note: close the awareness gap with enrollment-stage prompts and on-site signage that route students directly to open tables and relevant identity-based groups. For measurement, track resource awareness and use, attendance at open tables and identity-based events, the number of first-week acquaintances reported, cross-group connections over time, and self-reported "timetable isolation" before and after schedule or venue changes to test whether the offer is translating into connection.
Sources: Gilsbach and Stauder, 2025; Wodika et al., 2025; Oakley, 2020.

10.7 Network Norms & Social Identity Structures (environment)

Research on campus and workplace networks indicates that identity-coded structures and perceived status norms shape who connects and who feels able to speak about loneliness. Race-based organizations and events channel ties toward same-race networks, structuring social life and in-group identities. When friendship groups are segregated, social-network proximity—rather than geographic distance—constrains interracial partnering, limiting cross-group opportunities. Within year cohorts, popularity and activity patterns stratify access to support, concentrating social resources among the already central. Small, close networks can be fragile; when a few friends are unavailable, students often report a felt lack of alternatives and perceived exclusion. Stigma around admitting loneliness, compounded by power and status differentials in workplaces, inhibits disclosure and help-seeking. Some formats may lower these barriers: private or virtual options are noted as reducing the threshold for seeking help. Community social capital and regular, free events are associated with stronger belonging, especially when co-designed with young people. Practice note: pair identity-sorted offerings with deliberate cross-group bridges and clear inclusion norms so affinity benefits do not harden into isolation. Practice note: offer confidential channels alongside public programming and advertise them where status gaps are salient. As a limits note, most findings are observational and context-bound to particular institutions, so interpretations should remain associative rather than causal. For measurement, track network size and diversity, attendance at free events, uptake of private supports, and self-reported belonging before and after program changes to test whether norms and structures are shifting.

Sources: McClintock, 2010; Ellard, Dennison, and Tuomainen, 2023; S.L. Wright and Silard, 2022; Kempnich, 2021; Oakley, 2020; Mental Health Foundation, 2019.

11 Interventions for Adults 18-25(30)

11.1 Screening and Triage

Screening and triage for loneliness are typically run by student support services and clinical teams to surface risk early and route people to the right kind of help. Several statements advise building suicide-safety pathways into loneliness workflows, with standardized risk checks and clear referral steps, and being alert to psychotic-like experiences that warrant prompt clinical referral. At the same time, component-based assessment is recommended: identify whether depressive, positive, or interpersonal features of loneliness are most salient and align the next step accordingly. Attachment cues can guide routing, with anxious patterns pointing to loneliness-focused work and avoidant patterns suggesting a focus on emotional-intelligence exploration. Early triggers for screening include presentations with depression, anxiety, or academic difficulties, which signals when to ask about loneliness rather than waiting for self-disclosure. Because self-reports can contain blind spots, statements recommend triangulating with observed behaviors and functioning rather than relying on a single questionnaire. Interacting adversities—such as the intersection of family breakup and domestic violence—are highlighted as red flags for friendship-support vulnerabilities and should shape triage decisions. Culturally informed screening is also emphasized, noting that loss of family or group belonging can intensify distress among collectivist-origin students and should influence how need is understood and addressed. In practice, brief "pulse-check" screens and predefined thresholds can operationalize these recommendations, while case ownership and time-bound follow-up translate routing into reliable action. Teams can also apply an equity lens by examining patterns across groups and settings so that triage improves inclusion rather than merely labeling risk. Using standardized scales to open a conversation—rather than as end-point labels—keeps the focus on next steps that fit the person's profile and context. A limits note is that many of these recommendations come from lessons-for-practice rather than uniform trials, so local adaptation and monitoring are important. Overall, the statements converge on a triage approach that is safety-first, profile-matched, behavior-informed, and culturally aware.
Sources: Akram et al., 2025; Zabrodin Yu. M., Soldatova E. L., Andronnikova O. O., 2023; Helm et al., 2020; Hysing et al., 2020; Persich, Krishnakumar, and Robinson, 2019; Green and King, 2009.

11.2 Psychoeducation & Awareness

Psychoeducation and awareness efforts are usually led by institutions and frontline staff to lower stigma, increase help-seeking, and guide young adults toward concrete next steps. Several statements recommend providing early, acceptable support pathways and having faculty explicitly normalize candid talk about loneliness, so students see help-seeking as common rather than shameful. At the same time, psychoeducation should clarify what "lonely" means: some sources distinguish "being lonely" from "feeling lonely," normalize transition-related dips, and encourage staged prompts that help students name their experience. Complementary guidance reframes loneliness as a signal of unmet needs for competence, autonomy, and relatedness, linking awareness work to later skill-building rather than simply adding contacts. Friendship education also has a place: evidence describes friendships as buffers during life transitions and suggests nurturing supportive ties proactively rather than waiting until stress peaks. Related statements advise discussing the functions friendships serve and validating different ways of "doing friendship," avoiding the assumption that one profile (e.g., many casual ties) suits everyone. Psychoeducation can further look backward and inward: mapping childhood "chumship" or idealized past friendships can surface current barriers, while attachment-focused teaching about anxious cycles pairs with practicing incremental support-seeking. Awareness work is also practical: brief wellbeing teaching—sleep hygiene and simple problem-solving or behavioral activation—aims to restore energy and reopen social approach when low mood or stress narrows behavior. In practice, these strands are meant to be combined; several sources caution that psychoeducation works best when paired with active components (practice, planning, or structured contact) rather than as a standalone talk. A realistic limits note is that some findings are discussion- or lesson-based rather than from uniform trials, so teams should adapt content to local contexts and monitor uptake. When implemented, psychoeducation can anchor wider programming by giving students a shared language for needs, a non-stigmatizing story about transitions, and concrete next steps toward connection.

Sources: Mental Health Foundation, 2019; Wodika et al., 2025; Oakley, 2020; Curran and Elwood, 2024; Hartup and Stevens, 1997; Akram et al., 2025.

11.3 Cognitive, Self-Management & Purpose

Cognitive, self-management, and purpose-focused work is led by clinicians, coaches, and the young adult themselves, aiming to lower loneliness by reshaping self-understanding, managing digital demands, and clarifying meaning and goals. For existential isolation, statements emphasize meaning, purpose, acceptance of inherent aloneness, and a gentle openness to shared experience. Trait-targeted approaches propose boosting conscientiousness, extraversion, and emotional stability as a way to mitigate loneliness. Relatedly, interventions that enhance body appreciation are considered an indirect route to reduce loneliness. Several statements recommend extending beyond social skills training to address social cognitions and self-perceptions, including low self-esteem, mistrust, and intimacy fears in young and middle adults. The therapeutic relationship itself is used as a corrective experience to build confidence and disclosure readiness before practicing with peers. Attachment-tailored targeting indicates that for high attachment anxiety, practitioners should prioritize increasing social self-efficacy, whereas for high avoidance, they should target comfort with emotional self-disclosure practiced safely and progressively. Digital self-management guidance addresses "always on" pressure and notification overload by setting boundaries for responsiveness to reduce anxiety and burnout. Identity work is described as co-constructed in peer contexts (e.g., friends' photos and comments), and delicate disclosures should be preserved without forcing labels. Practice note: simple meaning-making exercises (values clarification, purpose statements) can help translate existential work into day-to-day choices consistent with gentle openness. Practice note: graded disclosure ladders and response-time norms operationalize the recommendations on disclosure readiness and digital boundaries. Measurement hook: track perceived meaning/purpose, body appreciation, self-esteem/mistrust/intimacy fears, social self-efficacy and disclosure comfort (anxiety/avoidance-tailored), and adherence to responsiveness boundaries as proximal indicators of loneliness reduction and improved connection quality.
Sources: Helm et al., 2020; F. Neto, Oliveira, and J. Neto, 2026; Rokach and F. Neto, 2005; Wei, Russell, and Zakalik, 2005; Niland et al., 2015; Oakley, 2020.

11.4 Clinical and Psychological Support

Clinical and psychological support for young adults is delivered by clinicians and trained counselors with the aim of reducing loneliness by changing maladaptive interpretations, strengthening competence and autonomy, and repairing relational patterns. Targeting maladaptive social cognitions through CBT—including recalibrating the "loneliness loop" and threat-focused attention—is reported as more effective than focusing on social support, skills training, or access alone. Evidence also indicates CBT techniques showed effectiveness while interpersonal psychotherapy was not consistently effective in one comparison. Within a self-determination framework, aligning social goals with personal values supports autonomy and makes engagement feel authentic rather than pressured. The same work emphasizes that competence beliefs mediate vulnerability, so low-stakes mastery experiences are used to build general social efficacy. Attachment-informed counseling links family-of-origin conflict to current difficulties with trust and affirmation, followed by rebuilding specific relational skills. For young adults, integrating body-image interventions alongside social support is recommended when appearance-based concerns drive withdrawal. Emotional and psychological support should be emphasized because instrumental help alone may not alleviate student loneliness. The literature also recommends exploring extra-familial supports and coping strengths to bolster resilience and broaden available relational resources. Curran and Elwood further propose psychoeducation that reframes loneliness as unmet needs and targets skills for competence, autonomy, and relatedness rather than merely increasing contact counts. Practice note: implementers can pair CBT thought records with values-aligned action plans and short mastery "reps" to connect cognitive change with day-to-day social behavior. Practice note: to monitor progress, track negative social expectations, competence beliefs, perceived emotional support, and frequency of rupture-repair attempts alongside session attendance and engagement.
Sources: Hawkley and Cacioppo, 2010; Morrish, Choudhury, and Medina-Lara, 2023; Curran and Elwood, 2024; Green and King, 2009; Barnett, Moore, and Edzards, 2020; Fabijanic, Batinic, and Vrselja, 2024.

11.5 Social and Conversation skills

Social and conversation skills training aims to make everyday interactions easier and more satisfying by turning vague goals like "be more social" into simple, repeatable behaviors. Core communication work focuses on active listening, asking open questions, and noticing nonverbal cues so the other person feels understood rather than judged. At the same time, programs coach self-disclosure that is gradual and reciprocal, helping young adults share enough to build trust without oversharing before safety is established. Because friendship is sustained by give-and-take, teaching concrete reciprocity—offering help, celebrating wins, and providing a listening ear—helps learners notice and maintain balance across time. Conflict is inevitable, so training includes "repair" tools such as respectful disagreement, perspective-taking, timely apologies, and forgiveness to keep relationships resilient after missteps. Several statements also highlight the confidence–competence loop: safe, repeated practice builds social self-efficacy, while pairing skills work with reflection on social cognitions prevents old assumptions from undoing progress. To bridge classroom to real life, role-plays and vignettes rehearse common dilemmas—trust breaches, rivalry, tricky asks—so learners move from abstract advice to specific phrases and actions. Entry skills get explicit attention too: rehearsing first lines, setting small outreach goals, and practicing how to join groups lowers the activation energy for new connections and supports later maintenance and even healthy endings. Because much social life now runs through phones, guidance on digital conversation norms—intentional messaging, reduced phubbing, and balancing online with offline contact—protects in-person talk quality. In practice, a tiered path helps: passive learning (models and examples) progresses to structured drills, then to real-world application with reflection on what worked. Group formats can provide belonging and live feedback while individuals build skills, though the statements suggest skills work is more reliable when combined with supportive contexts and attention to self-perceptions rather than delivered in isolation. A limits note is that effectiveness varies by delivery and context, so adapt pacing and challenge to local settings and track whether practice transfers beyond training sessions.
Sources: Niland et al., 2015; Curran and Elwood, 2024; Wodika et al., 2025; Fithriya, 2024; Brakespear and Cachia, 2021; Oakley, 2020.

11.6 Contact Engines & Activity Scheduling

Contact engines and activity scheduling are typically run by universities, workplaces, and community organizations, with the aim of increasing connection by structuring repeated, low-barrier opportunities for contact. Evidence emphasizes prioritizing "social access" through groups, classes, and volunteering to increase interaction opportunities; meta-analytic estimates report gains in objective contact overall and especially within social-access programs. Programs that assign peer accompaniment or mentoring—befriending relationships that can include phone or online contact—are reported to reduce isolation by giving newcomers a buddy to navigate events and spaces. Several statements indicate that early timing matters: front-loading mixers and cohort building in the first weeks and seeding diverse small groups helps counter rapid self-segregation. Focusing on changeable levers such as introductions to friends-of-friends is recommended to strengthen network interconnectedness. Providing clear pre-event information about what to expect is associated with reduced social anxiety and higher attendance at mixers and club activities. For $\geq$18 youth, one summary argues for incorporating societal and political context, encouraging civic engagement and community involvement as part of the activity mix. Practice note: standardize an "easy-entry" cadence (recurring, low-stakes clubs or pods) so contact is both predictable and naturally repeated. Practice note: pair sign-ups with default buddy assignment and an information pack (where to go, what happens, how long) to operationalize accompaniment and reduce ambiguity. As with any programmatic evidence, findings draw on specific settings and subgroup analyses, so transfer requires attention to local population and context. Measurement hook: track objective contact counts (attendance, repeat participation), buddy uptake and retention, persistence of small groups, recorded friends-of-friends introductions, and participation in civic activities as proximal indicators of increased connection and reduced loneliness.
Sources: Zagic et al., 2022; Fithriya, 2024; Wodika et al., 2025; Kempnich, 2021; Neugart and Yildirim, 2022; Qualter et al., 2025.

11.7 Group Integration & Peer Programs

Group integration and peer programs are typically run by universities, workplaces, and community organizations to increase connection by engineering repeated, low-barrier group contact. Evidence

indicates that group formats increase objective contact, with both tech and non-tech delivery proving effective, while favoring in-person, active participation and offering format choice. Small, consistent tutorials or study pods in hybrid settings are recommended as intentional foci that seed broader networks through repeated interaction. Complementarily, easy-entry micro-groups—short, predictable sessions—provide accessible pathways into participation for those hesitant to join larger activities. Befriending schemes that pair newcomers with a peer are reported to support transition, reduce withdrawal, and enhance belonging. Universities can also scaffold connection structurally via group-style coursework and by promoting participation in campus activities. Taken together, these sources position group delivery not just as a channel but as an active ingredient that combines practice, feedback, and belonging. Practice note: pair default buddy assignment with placement into a small, stable pod so that accompaniment and repeated contact reinforce each other. Because the literature recommends offering format choice and tailoring across settings, program designers should expect variability in what participants select and tolerate. Measurement hook: track objective contact (attendance and repeats), persistence of pods, buddy uptake and retention, and participation in group-style coursework and activities as proximal indicators of connection gains.
Sources: Zagic et al., 2022; Morrish, Choudhury, and Medina-Lara, 2023; Gilsbach and Stauder, 2025; Akram et al., 2025; Brakespear and Cachia, 2021; Aslan and Polat, 2024.

11.8 Digital Well-being & Online-Offline Bridge

Digital well-being and the online - offline bridge are typically run by student services, community organizations, and clinicians, with the aim of increasing connection by shaping online behavior and converting it into safe, repeated in-person contact. Several statements advise distinguishing passive social media use from direct engagement, noting that Facebook use is associated with mood declines whereas direct contact tends to improve mood. Practice note: invite brief mood self-tracking before and after social media sessions so users can see patterns in real time. Online social lives—platforms, group chats, and profiles—should be treated as central to friendship assessment and planning for young adults. Discussions of friends' "privacy work" (untagging, negotiating photos) help surface trust, responsibility, and boundary-setting online. Relatedly, practitioners should normalize curated self-presentation and the comparison feelings triggered by "show off" posts. For bridging, online befriending schemes that begin with moderated online or phone contact and progress stepwise to in-person meetings are recommended. Technology-enabled supports (online chat groups, apps, or individual journaling) are also reported to reduce loneliness. At the same time, student interventions should prioritize strengthening offline relationships rather than merely boosting online presence. When local offline foci are limited, region-based online meetups that leverage shared hometown or regional identity can facilitate first connections. Practice note: route through technology to real-world groups and retain a human or peer component to sustain engagement. Measurement hook: track the active:passive use ratio, mood checks around sessions, counts of online-offline transitions, instances of documented privacy boundary-setting, and uptake of region-based meetups as proximal indicators of improved digital well-being and increased in-person connection.
Sources: Kross et al., 2013; Niland et al., 2015; Brakespear and Cachia, 2021; Ellard, Dennison, and Tuomainen, 2023; Fabijanic, Batinic, and Vrselja, 2024; Gilsbach and Stauder, 2025.

11.9 Inclusion, Belonging & Social Expectations

Inclusion, belonging, and social expectations are typically shaped by universities, workplaces, and community organizations, with the aim of increasing connection by setting cohort-wide norms and identities that make participation feel expected and safe. Universal belonging initiatives in the early period—especially the first year—are recommended to reduce loneliness at scale. Group-based approaches that build shared identity and belonging are indicated to strengthen real-world connections, positioning groups as more than mere delivery channels. Addressing stigma while promoting community togetherness and shared care is recommended as part of a preventive stance rather than a remedial afterthought. At the same time, practitioners are urged to invite reflection on the benefits and constraints of race-based activities and to support intentional cross-network engagement where desired, recognizing the plural ways students belong. Statements also advise interrogating "quality over quantity" narratives to test whether a stated preference is masking constrained networks rather than reflecting genuine choice. Complementary quantitative evidence reports that psychological interventions most reduced deficits in perceived connection, suggesting that expectations about belonging are a consequential target alongside access. Practice note: concentrate efforts during transitions with cohort-style onboarding

and default buddy assignments to convert shared starts into shared identities. Practice note: recruit peer champions and run interest-based, low-stigma activities so inclusive norms are visible and socially rewarded. As a limits note, some sources are lessons/discussion pieces and one effect estimate comes from subgroup analysis, so transfer requires local adaptation. Measurement hook: track perceived connection/belonging, participation in identity-building group activities, uptake of cross-network opportunities, and stigma-related attitudes during the first-year window to assess movement on inclusion and loneliness.
Sources: Hysing et al., 2020; Landry et al., 2022; McClintock, 2010; Oakley, 2020; Zagic et al., 2022; Fithriya, 2024.

11.10 Institutional/Academic & Work Supports

Institutional, academic, and work supports are run by universities, colleges, and employers, with the aim of increasing connection by structuring study and work so help, practice, and informal contact are built-in rather than left to chance. Relational onboarding and mentoring are recommended to provide early answers to questions and opportunities for stress release, positioning supportive ties as part of the entry experience. Training problem-solving skills is associated with higher academic self-efficacy and better grades, suggesting that academic skill development can sit alongside social goals without trade-off. Programs are advised to build between-session interaction—through practice and facilitator or group contact—and to include clear learning mechanisms so participation carries over between meetings. Employment and vocational support programs are reported to facilitate transition to work and can aid mental health, linking institutional supports to life-stage changes that often destabilize social networks. A parallel recommendation is to shift burden from individuals to contexts by redesigning jobs, schedules, and spaces to enable informal connection and belonging. Together these statements frame institutions as active enablers of connection: they structure practice, create relational points of contact, and redesign settings so that "bumping into people" is normal. Practice note: pair cohort onboarding with default mentor assignments and a predictable Q&A cadence to operationalize relational entry. Practice note: rework timetables to include short, shared breaks in shared spaces so informal contact is possible without extra effort. As a limits note, several recommendations are drawn from lessons and conclusions rather than uniform trials, so transfer requires local adaptation and monitoring. Measurement hook: track onboarding uptake and mentor contact frequency, between-session practice completion, problem-solving skill assessments, participation in vocational programs, and opportunities for informal contact (e.g., shared-space utilization) as proximal indicators of connection growth and loneliness reduction.
Sources: Aslan and Polat, 2024; Morrish, Choudhury, and Medina-Lara, 2023; S.L. Wright and Silard, 2022; Mental Health Foundation, 2019;

11.11 Healthy Habits & Lifestyle

Healthy habits and lifestyle work is led by student services, health-promotion teams, and young adults themselves, aiming to reduce loneliness by reshaping everyday routines around social connection and self-regulation. One set of statements recommends leveraging a "good friend" identity and an ethics of moderation—enough to connect, not enough to damage shared enjoyment or care—to reframe heavy drinking as risking friendships. Complementing this message, structural controls in social settings (limiting multi-drink sales, refusing service to the intoxicated, considering social-host liability) are proposed and explicitly aligned with friendship imperatives. Additional statements clarify alcohol's connection functions: for some, intoxication helps overcome emotional restraint, so connection needs should be treated alongside substance use. They also differentiate sociable from individualistic drinking motives, noting that individualistic motives increase emotional risk and "feeling trap" vulnerability. Programs are advised to add holiday-period check-ins and basic coping skill-building within routine programming. Physical activity is encouraged as a habit lever and is associated with reduced internet addiction and improved problem-solving skills. Practice note: institute negotiated "tech curfews" to protect sleep and reduce "always on" pressure that undermines regulation and next-day social energy. Practice note: put low-pressure, recurring social slots on the calendar so interaction opportunities are predictable and easier to approach. As a limits reminder, several recommendations are context-specific or association-based, so local tailoring and monitoring are needed. Measurement hook: track weekly alcohol contexts and peaks, use-of-structural controls, holiday check-in completion, physical-activity frequency, and sleep regularity as proximal indicators of behavior change linked to connection gains or loneliness reductions.
Sources: MacLean, 2015; Törrönen and Maunu, 2011; Wodika et al., 2025; Aslan and Polat, 2024

Part: Structuring Intervention Analysis

12 Research gaps

12.1 Networks (Selection vs. Influence): Minimal Viable Standard (MVS)

What must be true (kept): Part of youth loneliness is causally driven by peer context; models must separate selection from influence.

Design principle: Bounded cohort + tiny extra-cohort window, three waves, four edge attributes, two inclusion screens. Enough for SAOM/RI-CLPM; light enough to finish in ˜one short session.

Boundary & Waves

- Boundary: Choose a bounded roster (e.g., class, dorm, program).
- Extra-cohort window: Allow up to 5 "important non-cohort" alters (convoy/"liked people" supplement) to retain ecological validity.
- Waves: t0 (start), t1 (6–8 weeks), t2 (end of term/semester) to capture transitions and early influence.

Name/Rate Flow (fatigue-controlled)

1. Inclusion Screen 1 (cohort): "Tick anyone with whom you had a personal conversation $\geq$10 minutes in the last 2 weeks outside formal requirements."
2. Inclusion Screen 2 (salience): From those ticked, "Who did you feel personally supported by at least once in the last 2 weeks?"
3. Rate only those passing any screen (often 8–20 alters per ego).

Core Edge Attributes (4 items; 0–4 scales, directional)

- Contact frequency (outside formal settings).
- Perceived support ("I could count on X if I had a problem").
- Emotional closeness (felt closeness, not just liking).
- Conflict/strain (brief 0–2 item; optional but valuable for mechanism).

(Derived automatically: reciprocity, new-tie formation, degree, isolates, simple triadic closure.)

Minimal Node Fields

- Ego/alter IDs (hashed), age band, program/class, duration known (months), mode flag (online-only vs. in-person/mixed).
- Optional subgroup tags (e.g., migrant/LGBTQ+/disability), gathered via opt-in and stored separately to minimize risk.

Outcomes (primary & secondaries)

- Primary: Youth-valid loneliness (social & emotional subscales to avoid type mismatch).
- Secondaries: Perceived connection/belonging (school/university), well-being (brief), TSR quality if in school setting.
- Mechanism readouts: counts of new ties, reciprocal supportive ties, average closeness change, isolate$\rightarrow$non-isolate transitions.

Administration

- Workshop (bounded cohort, proctored tablets/paper): maximizes completeness; privacy seating + sealed envelopes or on-device hashing.
- Online (roster picker with search, progress bar, autosave): better reach; add reminders and attention checks.
- Data protection: consent by wave, separate PII–network keys, minimum necessary subgroup data, clear opt-outs.

Modeling & Decision Rules

- Models: SAOM for selection–influence; RI-CLPM for within-person loneliness ↔ support/closeness.
- Decision criterion (kept & sharpened): Retain an influence claim only if it survives partner-reported edges and selection controls, and predicts pre-registered mechanism shifts (e.g., ↑reciprocal support, ↓isolates) between waves.

12.2 Longitudinal identification

What must be true

- Directionality and timing matter (e.g., TSR → loneliness next month vs. loneliness → TSR); claims need within-person change, not cross-section snapshots.

Why past studies struggle (current bottlenecks)

- Left-censoring the transition: Most panels start at "arrival," missing pre-arrival anticipatory shifts (loss of school ties, summer drift).
- Heterogeneous clocks: German admissions are compressed (unlike UCAS). "Start dates" differ (acceptance, matriculation, first class, first exam), making event alignment inconsistent.
- Cohort construction is hard: Identifying a recruitable, bounded cohort (and keeping it intact through summer → move-in → term) is administratively and ethically nontrivial.
- Attrition vs. granularity: Weekly waves catch short-run dynamics but drive survey fatigue; quarterly waves miss the action.
- Self-report dominance: Heavy reliance on scales without partner/behavioral corroboration—directionality assertions rest on single-source noise.
- Measurement drift: Few studies test longitudinal invariance/DIF; observed "change" may reflect shifting interpretation, not constructs.
- Confounded timelines: Housing delays, exam blocks, part-time work, and city move logistics all co-vary with loneliness and connection—rarely modeled as time-varying covariates.
- Missingness not at random (MNAR): Those who become lonelier are likelier to drop out; most analyses assume MAR, biasing trajectories.
- Non-WEIRD external validity: Panels anchored on white university entrants don't transport to vocational/NEET/job starters; parallel cohorts are rare.
- Data protection friction: Linking waves to admin milestones (admissions, housing) raises GDPR/consent frictions; delays and uneven access create gaps at key events.
- Underpowered within-person paths: Sample sizes are tuned for between-person correlations, not within-person directional effects.
- Inconsistent outcomes: Studies mix "loneliness," "belonging," "connection," and well-being without a minimal common battery—comparability breaks.

Gap statements (not prescriptions)

- Cadence gap: No consensus on minimum wave density during the first 90–180 days; designs vary from intense to sparse, undermining comparability.
- Event alignment gap: Lack of agreed event anchors (acceptance, move-in, first instruction) for Germany-style timelines; waves land at different real-world phases.
- Construct clarity gap: Limited separation of trait vs. state components; directionality claims are often cross-lag proxies without within-person decomposition.
- Mechanism visibility gap: Few panels track proximal relational mechanisms (new ties, reciprocal support, TSR shifts) alongside loneliness, so temporal order is ambiguous.
- Representativeness gap: Transition panels rarely include job starters/vocational tracks; even when included, subgroup sizes preclude subgroup-specific trajectories.
- Instrumentation gap: Minimal multi-method corroboration (partner reports, light behavioral indicators), so causal narratives rest on single-informant variance.
- Governance gap: Ethics/consent and institutional calendars make pre-arrival or acceptance-triggered waves uncommon, entrenching left-censoring.
- Reporting gap: Few papers pre-commit to an interpretation standard (e.g., "no causal language without temporal precedence + within-person effect + robustness to event controls").
- Durability gap: Limited follow-ups at 6–12 months; short-run effects dominate the literature.

Interpretation standard (what evidence is still missing before upgrading claims): Treat reported "effects" as provisional unless there is (i) temporal precedence at the within-person level, (ii) measurement invariance across waves/subgroups, and (iii) robustness to event-timing covariates and plausible MNAR patterns.

12.3 Non-WEIRD sampling (external validity)

What must be true

- Inferences about youth loneliness generalize beyond white, affluent university samples, and the construct itself (and its items) has the same meaning across groups.

Why past studies struggle (current bottlenecks)

- Construct non-equivalence: It is unclear whether common loneliness scales (and item wordings) mean the same thing across cultures/languages. Ongoing item-interpretation work (e.g., NEC/Hans Eisenmann) underscores semantic drift and response-style differences, making pooled analyses precarious.
- Translation without invariance: Many projects do translation/back-translation but do not test measurement invariance/DIF, so group contrasts may be artefacts.
- Convenience frames dominate: Recruitment is easiest in WEIRD universities; vocational/NEET, job-starters, and migrant youth are costly and logistically hard to reach.
- Patchwork small-N qual studies: Deep, niche qualitative samples (e.g., 20 participants in a single subgroup) do not cumulate into transportable estimates; they generate hypotheses but seldom scalable evidence.
- Mixed cohorts, unclear modeling: German programs often include international students (e.g., Indian/Chinese in engineering). Shared institutions aid logistics, but heterogeneous cultural backgrounds inside one cohort complicate what "culture" means analytically (country, language, migration status, acculturation, SES?).
- Sampling metadata is thin: Many datasets record country of study but not acculturation, language proficiency, migration generation, visa status, or SES, obscuring which dimension drives differences.

- Ethical/legal friction: Collecting sensitive background variables (ethnicity/migration) triggers GDPR and institutional hurdles, leading teams to omit the very variables needed for validity checks.
- Mode and access bias: Online surveys privilege smartphone-comfortable, literate participants; coverage error varies by subgroup.
- Missing-data nonrandomness: Attrition and item nonresponse are often higher in under-represented groups; analyses assume MAR, biasing group comparisons.
- Coordination deficit: Cross-country comparability requires common instruments and timing, but funding and governance for such multi-team orchestration are rare.

Gap statements (not prescriptions)

- Construct clarity gap: We lack evidence of invariance for youth loneliness (and subtypes: social vs. emotional) across language/culture/setting; item interpretation differences remain unresolved.
- Sampling frame gap: No shared non-WEIRD sampling frames (vocational schools, job centers, migrant hubs) with documented coverage errors and weights.
- Metadata gap: Typical datasets under-specify cultural background (beyond passport/country), preventing credible modeling of heterogeneity (acculturation, language, migration generation, SES).
- Comparability gap: Multi-site efforts rarely run parallel protocols across countries/settings, so transport analyses (what changes when moving contexts) are sparse.
- Analytic gap: Group differences are reported without DIF checks, response-style adjustments, or MNAR sensitivity—apparent effects may be measurement artefacts.
- Durability and context gap: Even when non-WEIRD samples are included, there is little longitudinal follow-through, so we do not know whether group differences persist or invert over time and events.

Interpretation standard (what evidence is still missing before upgrading claims): No policy generalization to non-WEIRD populations unless:

1. Configural/metric/scalar invariance (or defensible partial invariance) is shown for core loneliness constructs;
2. Background metadata sufficient to model culture/acculturation/SES is present;
3. Coverage/attrition patterns are described and addressed (weights, MNAR probes);
4. At least one replication outside WEIRD university settings demonstrates comparable effects or explains divergences with documented measurement differences.

12.4 Scalable, contact-provision interventions

What must be true

- There exist economically scalable, direct-contact designs (matching, speed-friending, practice-based social skills, large-scale encounter formats) that reliably increase real social opportunities (new weak/strong ties, sustained contact), not just reduce self-reported distress.

Why past studies struggle (current bottlenecks)

- Conceptual tunnel vision ("law of the instrument"). Intervention portfolios skew to psychoeducation/mindfulness/CBT because they are deliverable in classrooms or online—crowding out contact-creating designs.

- No shared "concept bank." There's no structured catalogue of contact mechanisms (e.g., guided disclosure, reciprocity prompts, triadic closure, role-based tasks) $\times$ delivery formats (1:1, triads, rotating pairs, cohorts, hybrid). Researchers argue "we need RCTs," but don't know what to randomize.
- Mechanisms underspecified. Studies report loneliness scores without proximal social metrics (new ties, reciprocity, frequency, persistence), making it impossible to tell whether an approach is a contact engine or just mood management.
- Practice exposure missing. Many programs teach skills but don't stage practice with real peers at scale; participants leave without added ties.
- Operational invisibility. Scalability hinges on facilitator load, room/time logistics, recruitment friction, and cost-per-participant—rarely measured or reported. Claims of "scalability" are speculative.
- Timing neglect. Contact needs are highest at entry points (first 60–90 days at uni or a new job), but most interventions are scheduled after networks have already gelled.
- Framing & stigma. Loneliness-labeled programs can depress uptake; generic social/skill/interest framings are underused, but we lack evidence on which framings maintain dignity and maximize participation.
- Evaluation inertia. Existing outcomes prioritize symptom scales; there's no minimal contact outcomes set (e.g., #new weak ties, %reciprocal ties at 30/90 days, repeat-meeting rate).
- Non-WEIRD portability unknown. Even promising formats are tested in affluent, university contexts; community/NEET/vocational settings remain untested, so external validity is unclear.
- Procurement & governance friction. School/employer gatekeepers prefer low-risk workshops over high-throughput mixing events; risk management (safeguarding, supervision ratios) deters adoption.

Gap statements (not prescriptions)

- Portfolio gap: Absence of a mapped landscape of contact-provision concepts deemed plausible at scale.
- Mechanism-to-format gap: Lack of a matrix linking *mechanisms* (e.g., reciprocity, disclosure, shared task, triadic closure) to *formats* (speed-friending, peer-triads, task squads, community "mixers," algorithmic matching).
- Practice gap: Few interventions create structured, repeated, low-awkwardness encounters that convert to ongoing contact.
- Operations gap: Little reporting on throughput constraints (facilitator:participant ratios, venue/time limits), unit costs, and failure points (no-shows, drop-off).
- Outcome gap: No core contact metrics alongside loneliness (e.g., repeat-meeting rate at 7/30 days, isolate$\rightarrow$non-isolate transitions).
- Timing gap: Sparse evidence on entry-window designs (pre-arrival, orientation week, first month) when marginal gains are largest.
- Framing gap: Insufficient comparative evidence on program labels (skills vs. belonging vs. social/interest) and their effect on uptake/stigma.
- Transport gap: Minimal testing in non-WEIRD contexts; no transport analyses showing what changes when moved to job starters/vocational cohorts.

12.5 Within / fast intervention variable capture

In loneliness and intervention work it may be necessary to capture sentiments and progress at intermediate points. The question is how and with which variables and questions. The overall hunch is that about four different variables are necessary, maybe five.

The key requirements or premises are as follows:

- Be event-agnostic (works after A: mixer, B: speed-friending, C: training).
- Cover present experience and a near-future expectation without forcing logistics.
- Distinguish individual tie from community vibe (two vantage points).
- Remain one minute total and intelligible / meaningful / helpful to both scientists and practitioners.

Possible variables are as follows. We intentionally use compound (double-barrelled) stems with inclusive-OR semantics: each item pairs at most two facets (e.g., safe or relaxed) to elicit recognition rather than hesitation; respondents should endorse the item if either facet applied, and select low/no only if neither did. Maybe instructions need to include something like 'Compound items are scored as endorsed if any named facet is present; we do not require both facets ('and' is never implied).'

The five variables are now emotional inclusion - personal connection - community welcome - social development - individual needs.

- **Emotional Inclusion** (Warmth, Affect Yield) - felt seen/soothed/less lonely now, was I emotionally included - my inner state now. *I felt emotinally included and/or mattered here*
  This aspect specifically addresses the psychological threat cycle and interrupting it. Did it trigger threat/hypervigilance in the lonely person or were they at ease
  - Safety/respect: I did not feel threatened, I felt respected. Not enough of course for warmth, but something to consider.
  - Relief / Relax/ Good overall: I felt calmer, more at ease, relaxed, fine at the end
  - Vitality: This felt alive and energising in a good way
  - Warmth: I felt loved, embraced, warmed, connected Note: Possible overlap with attachment
  - Note: Warmth is not room fit - it is my internal emotional state with the event and the interaction, room fit is evaluation
- **Personal Connection** (Connection creation, connection sponsorship, new contacts): Did a person to person moment actually occur *I had a real moment of connection with someone here and possibly expect to interact with that person again*
  Capture seed of a connection, start point, and a certain level of objectivity and tangibility
  - attachment: Specific person to person moment of connection - dyadic signal
  - depth: I shared or received something that mattered to me with someone here, I managed to rise beyond small talk.
  - understanding: Somebody "got me today" Note: this might also be an individual need if too rare
  - help - reciprocity: someone helped me, I helped someone today Note: This is really important, but might be too rare to dedicate a question to.
  - Prospect: I expect to interact again with someone from here (future vector, no to-dos)
- **Community welcome** (Support and Belonging, connection to community) *I felt I was in the right room with the right crowd here*
  - Room-fit: the place/community felt welcoming—for me (third-place/hosted vibe).
  - Inclusion: People like me are genuinely wanted here.
  - Norms clarity: It was easy to understand how things work here
  - Cultural resonance: My background/ perspective felt understood and respected here

  - Note: For hosted events: Host warmth vs. peer warmth, quality of event organised, ... Might be breaking the brevity constraint
  - : Note: There should be also some cue on activation, on whether the person would like to return.

- **Social development** or growth (Social Skills and Personal social growth, actionable growth) : skills and confidence for the next steps *I learned something about my social behaviour and(or) am more confident to start/continue a conversation this week*

  - Confidence: I feel more confident to start/continue a conversation this week
  - Learning: I received valuable feedback, I learned something about myself how I interact with people
  - Idea/Experiment: I received a suggestion I can try out, a technique how to become better with people, a snippet improving a social skill

- **Individual need** (Optional: Individual needs question, understanding, affection, creativity, ...) *Somebody connected with a specific personal social need of mine like intellectual understanding, emotional affection or my type of humour.*

  - possibly overlap with prior question, but relevant if people feel lonely because they miss something specific in their life. E.g. if the issue is 'all nice people, but they dont understand my cultural background'
  - Intellectual understanding, cultural understanding, same passion for niche interest or hobby, need for expressed affection/hug

But other variables are also possible. The key question is what items to capture how maybe the third session and the seventh session have different results. It is also important if a lonely person attends different interventions, to see which one of them is likely to push the needle if there is progress. The concept of getting a fast emotional pulse at various times during the week, or shortly after defined points, is not new and indeed pretty standard. However the key would be to identify a few standardised variables that are uniquely suitable to measure a temporary connection sentiment, to track progress.

Other candidates for triads or tetras are (ChatGPT, discussions with people)

- Depth, Breadth, Continuity (operations)
- Capability, Opportunity, Motivation (behaviour change lense)
- Autonomy - competence - relatedness (need satisfaction)
- Bonding - bridging - linking - social capital (network reach(
- Emotion - Cognition - behaviour
- PERM - Positive emotion, engagement, relationships, meaning (Perma minus A) - might be something.

None of them really fit as well as the tetra of 'affect yield, connection sponsorship, support/belonging, growth and skills' but as setting four or five variables as key items to also generate comparability of depth development of interventions as a common ground is a very strategic decision, this needs to be rigorously discussed, aligned, reviewed and compared with other similar projects.

Possibly this would be to measure or capture progress to a base line, a base sentiment. A short I was feeling X, and now there was a short component of an intervention, and then what happened. Getting indication whether there was any component of the intervention that felt effective in the moment.

The key word here is ecological momentary assessment (EMA) or Experience sampling

Prior studies explicitly studying loneliness and connection with experience sampling

Buecker, Horstmann, and Luhmann, 2023 is a study explicitly studying loneliness with experience sampling, however focusing on the association with baseline psychopathological symptoms. The questions were also more oriented toward the general state 'I felt left out today','I had no one I could turn to today' and 'I felt isolated from other people today' and were negatively phrased. **WilsonHarris2015** on the other hand focus in their study on existent friends and satisfaction with them. Merolla, Neubauer, and Otmar, 2024 studies responsiveness and social connection regressing this on life satisfaction. However a general experience sampling evaluation on a diverse population to see which moments are feeling good and connected as they happen seems to be extant.

A common standard for data capture for loneliness / connection experience sampling

It would be great to achieve a consensus amongst a group of researchers to include this measure of experience sampling into other loneliness and connection intervention projects. These do not need to be rolled out among all the participants of a separate study, maybe a percentage of 20 % would be sufficient. The goal would be to gather base data on the trajectories of different participants, how often they are prepared to hit the app and submit the data, and also in which contexts people remember to do this, if it is not triggered by hard reminders or alerts.

There are a number of tools on offer, such as ExpiWell and MetricWire, others include RedCap and Formr. But the easiest to start with is PIEL Survey, which is free and available. The alternative would be ExpiWell, which seems to be priced at about 300 USD per month, so about 3600 USD per year. The question is whether there is feasibility of running multiple projects under a single instance, i.e. by a single university or team with the capability for data processing, analytics etc. to serve as the central hub and offering it as a free bonus item to other collaborating projects. This would not just be to reduce costs, but also ensure data consistency and joined capture to generate a uniform dataset.

12.6 Other items also to be considered

- Measurement specificity & youth voice: Separate social vs. emotional loneliness; run invariance/DIF; include behavioral/dyadic indicators.
- Mechanisms/personalization: Pre-register which mechanism a design will move; analyze for whom (moderators) before doing head-to-head efficacy claims.
- Timing & prevention windows: Treat transitions (first 60–90 days) as design parameters; use high-frequency sampling there.
- Context systems (family/school/community/policy): Add TSR, family communication, and venue/third-place levers as targets, not background.

13 Intervention categorisation and evaluation for practice

13.1 Bouwman levers for intervention

Bouwman and van Tilburg, 2020 did a review of interventions and developed seven levers or content aspects for categorising the focus of the interventions.

Activities

What it does: Occupies people meaningfully so loneliness recedes; incidentally creates contact opportunities and belonging (solo or group).
Typical formats: leisure/skill development, educational/ICT training.
Examples: group computer skills classes, weekly choir, indoor gardening.

Meet-up

What it does: Increases chances for new or renewed social contact; some one-off encounters mature into ongoing ties.
Typical formats: social facilitation, "increase opportunities for contact", social activities.
Examples: group phone calls (e.g., for blind veterans), using social media to connect, recurring group meetings.

Practical support

What it does: Makes people feel embedded and not alone by offering concrete, easy-to-access help; closeness is not required.
Typical formats: home-visiting, health and social care provision, information about community services.
Examples: structured home visits, peer-support by phone, OT training in assistive aids plus service signposting.

Meaningful contact

What it does: Builds regular, trusting, personal relationships that convey "someone is there for me," strengthening belonging and security.
Typical formats: befriending/buddy schemes; in some cases, animal-assisted, robotic, or virtual-pet interactions to elicit felt recognition and support.
Examples: neighbourhood trust-building groups, telephone befriending, volunteer buddy visits; robot seal sessions, companion animals.

Social skills

What it does: Improves conversation, listening, intimacy-building, and problem management; boosts confidence and perceived worth as a partner/friend.
Typical formats: social-skills training, psychosocial education, self-management for relationships.
Examples: paired speaking/listening practice, courses on investing in friendships, sessions on organising one's care and relationships with carers.

Realistic expectations

What it does: Resets frequency/speed expectations for relationships to prevent disappointment → withdrawal cycles; promotes positive learning experiences.
Typical formats: CBT/psychological therapies targeting maladaptive social cognition.
Examples: CBT modules; friendship-enrichment lessons on expectation-setting.

Meaningful role

What it does: Provides purpose, recognition, and contribution—strengthening bonds with people and community through valued participation.
Typical formats: volunteering, buddying others, intergenerational roles.
Examples: older adults as foster/grandparent figures; buddy-volunteer programmes (noted as underemphasised in reviews but present in examples).

13.2 Developing further content categorisation and mechanisms

Skills, Support, Opportunities, Cognition, Community

Form Factor

1:1 / dyad / group / community; delivery: in-person, phone, digital; synchronous vs asynchronous; guided vs self-guided.

Alternative categorisation: 1:1, Group, Event, Platform/App, Community infrastructure

Dose

Dose: session length, frequency, maintenance

Intake design and eligibility

Drop-in / Walkup, sign up, referral / social prescription, members only

Marketing / Targeting

Hearsay, community oriented marketing, public support. What costs are incurred or to be expected for the measure marketing.

Setting

Cafe, Pub, Library, community center, public space, bench, park, home visit, work place / school, online room, phone/video

The setting is both a variable for accessability and feasibility, for available mechanisms and closeness that can be reached through the measure with others, as well as main cost driver.

Cost to participant

The categorisation of cost of event o the host or hosting organisation is dealt with later, but the question is the cost to the participant. This can be direct, e.g. by form of membership dues or event based entry fees, but can be also implicit, e.g. by incurring transport costs to the venue, the availability of certain technological equipment, or implicit consumption expectations at the venue.

13.3 Developing operational categorisation

Suitable organisations

For adolescent interventions we established mostly the following:

- School environment
- Leisure environment (community, youth centres, after school)
- Home environment (parents, families)
- Professional support
- Online offers

For young adult interventions we established mostly the following:

- University and college environment
- Leisure environment (community, youth centres, civil offers)
- Work environment (employers, supporting organisations)
- Professional support
- Online offers

Categories also chosen (and overlapping with the above) are charity, municipality, faith group, civic group,

Necessary people resources / staffing

General volunteers, paraprofessionals, clinicians, supervision model, training for volunteers, time availability.

For certain types of interventions with vulnerable people a certain level of certification may be necessary. This I would qualify as a resourcing problem, and requirement of certification of organisation and certification of available people usually overlap to some degree.

A further subcategory of resourcing is the **facilitation intensity**, i.e. whether the intervention has no facilitation, has trained volunteers (befriender, buddy, peer), professional facilitation or other conducting model.

Economics and Scaling

- Financial cost
- Time cost of offer
- Room availability
- Other ressource needs

With this is also the question of financing, whether it comes from organisation, is covered, or not necessary for using available resources. There is also a difference in variable and fixed costs for organisations. A church or community center may have rooms available that can be used for free by an organisation for a social cause, but ultimately also they need to maintain the building

Effectiveness

Most research papers evaluating measures and interventions focus on statistical significance of loneliness measures changed, and thus require substantial power by respondee numbers. For small offers e.g. a weekly pub or lunch meetup this might be infeasible, and yet this is the sort of low-key practical measure that is most promising. Here an easy to implement feedback mechanism that promises good coverage would be helpful.

Target group specificities

A certain proportion of chronically lonely people suffers from specific other issues, such as ill health, lacking mobility, other psychological afflictions. Some interventions are specifically designed and adapted to suit those attributes, and thus need to be evaluated in their context.

13.4 Economics and scale readiness

Unit cost per participants

Definition: The total resources it actually takes to serve one person (staff time, volunteer time even if unpaid, space, materials) for a usable "dose" of the intervention.
Why it matters: It tells us whether the offer can be repeated and compared fairly to others, not just whether it helps in one small, well-resourced setting.

Financing avenues and likelihood

Definition: The realistic places ongoing support could come from—public budgets, grants, earned income, and in-kind help—and how likely each is, given the program's aims and simple reporting.
Why it matters: An effective program still fails if money or in-kind support cannot be renewed; this clarifies which routes can keep it alive without constant emergency fundraising.

Recruitment risks and costs

Definition: The time, effort, and money needed to reach the right people and have them actually attend (and return), including barriers like timing, travel, language, or stigma.
Why it matters: Many good ideas fail at the doorway; knowing this cost per *retained* person prevents over-promising and guides fixes to access and outreach.

Bundle and portfolio effects

Definition: How different offers work together—sharing hosts/space and meeting people at different steps (warm welcome, meeting someone, practice)—rather than each standing alone.
Why it matters: Bundling often raises impact and lowers average effort per person; a weak link can waste the rest, while a good sequence turns first visits into lasting participation.

14 Mapping types of interventions and offers

Once the interventions are categorised for effectiveness and suitability, the second question is then which organisations actually employ them, and what the density is in which communities. This would be an extension of papers like Buecker, Ebert, et al., 2020, Li et al., 2024 and Gibson-Kunze and Arriagada, 2023. The goal would be to establish also a comparison of regional practice, regional needs and effectiveness & efficiency perspectives.

In particular, once a suitable categorisation is achieved, it would then be interesting to query universities and Colleges (Hochschulen) and regional industrial or employer representatives (IHK, employers, ...) for existence of interventions on a local organizational level and evaluate impact and reach for local populations of students and job starters..

14.1 Description Template Type

Description for type of service: The goal here from the previous section would be to design a full description template as a one or two pager that could ultimately be linked with or uploaded into a database. This would capture the stereotypical design of the intervention, define possible variants and variations, and give information to people

Example Template Type Include here a mockup of a design or description template for types of offers.

14.2 Description Template Concrete offer

The next item is a standardised questionnaire for a concrete offer, e.g. a speed friending offer. What target group was chosen, how much effort was spent on marketing, how was signup and recruiting going, what was the no-show rate. What resources (people involved, room, costs, ...). It would be great to standardise it to a degree 'one size fits all', but this is unlikely to work.

Example Offer Type Include here a mockup of a filled out template of a specific offer, with concrete service description, staffing, cost and effectiveness.

15 Reviewing status of evaluation for types of interventions and offers

This part is to accept that some types of interventions have been fully evaluated by a multitude of studies and with different indicators, methods, and participant groups, whereas other formats have not been tested or even properly documented in their design and the designs variation. Thus it is even possible for a certain design not to be that effective with one group, but with a few variations very effective in a different target group or context setting. So rather focusing on the rigour of the statistical analysis, the first order is getting a full rough overview of the level of evaluation done in the first place, and how to structure it.

15.1 Content evaluation

Because many impactful interventions are unsuitable or unfunded for RCTs, we treat evidence as an ecosystem: rigorous trials where feasible, qualitative studies to explain mechanisms and equity, practice reports to signal promise, and explicit recording of nulls/harms to keep the field honest

Full rigorous evaluation

Definition: A study using experimental or quasi-experimental designs (e.g., RCT, cluster/step-wedge, matched comparison) with pre-specified outcomes and transparent reporting.
Why it matters: Best at separating program effects from noise or bias; estimates benefit (and harm) with clearer confidence when contexts are comparable.

Qualitative evaluation fully documented

Definition: Systematic interviews/observations/focus groups with sampling, protocol, coding approach, and limitations written up.
Why it matters: Shows *how/why/for whom* things work, surfaces unintended effects, and guides equitable adaptation when numbers are small.

Lay-reports on effectiveness

Definition: Practitioner case notes, community presentations, and local media accounts describing observed changes without formal methods.
Why it matters: Early, low-cost signals of promise or risk; useful for hypothesis generation and fit checking, but must be triangulated—not treated as proof.

New design / no evidence yet

Definition: A concept or adaptation not yet evaluated in this population/context (e.g., transferring a youth program to older adults).
Why it matters: Encourages innovation, but needs a clear mechanism/fit rationale and minimal monitoring to avoid blind rollout.

Negative or neutral evidence

Definition: Completed evaluation (any method) shows no measurable benefit, mixed results, or harm for some subgroups.
Why it matters: Recording nulls and harms prevents repeating ineffective or inequitable practice and supports ethical, efficient use of resources.

16 Implementation suitability and readiness

In order for an intervention to be suitable for intervention it needs to be fully documented with an implementable protocol. These are particularly hard to find. Detailled host or facilitator notes for workshops and events, powerpoints with the content and instructions to host social skill trainings are far and few in between.

Part: Reviewing Connection Portfolio

17 Which intervention for which organisation and which target group - is and could

This section is then the core

17.1 Matching formats

Speed friending

The format is to bring people together, usually twenty or thirty people.
Effectiveness:
Evidence:
Economics: Financial cost - none, time cost - yes, room cost - yes, dependent on the community, other resource needs - marketing
Variations Random matching, round circle matching, two round circles - one moves Examples: No papers

Party organisation

Economics: Financial cost - yes, time cost - yes, room cost - yes, dependent on the community, other resource needs - marketing

General mixers

General get togethers and mixers are classical format.
Effectiveness/ Mechanism: Direct contact
Economics: Financial cost - yes (drinks, food, ...), time cost - yes, but not structural, room cost - yes, other resource needs - marketing/food

Direct matching / schmoozing

One effective and free method of bringing people together is to simply introduce them. This can be done in communities, where central people are connected well. Putnam, 2000 calls this process 'schmoozing' **Effectiveness/ Mechanism**: Direct contact
Economics: Financial cost - none, time cost - yes, but not structural, room cost - none, other resource needs - none

17.2 Volunteer contacts formats

Public Bench meetup

Animal befriending / therapy dog visit

Elderly befriending

Organisation needs to manage volunteers. On a small scale this can be managed by a local community informally, matching elderlies in social need in the community to available volunteers in their communities.

Rikshaw visits

One on two visits, volunteer based driving of rikshaws. Rikshaws need to be maintained by an organisation. Organisation needs to organise trips, volunteers, volunteer to interestee / client matching.

17.3 Community building

17.4 Activity based

Mens Shed

Running in the park

Are people coming again, are people getting acquainted, are people talking.

Stationary sport in the park

The question is whether people go to the same spot, and make acquaintances over time.

17.5 Social skills training

Social Skills training - group mode

Workshop for social skills with 10-30 people, possibility to practice
Economics: Financial cost - yes, time cost - yes, room cost - yes, dependent on the community, other resource needs - marketing

Social Skills training - online

Examples: Noemi Seewer SOLIS program **Economics**: Financial cost - yes (IT cost), time cost - yes, room cost - none, other resource needs - marketing

17.6 App and Online Interventions

Signposting and Directing to other offers - maps

One incredibly important activity is signposting and guidance for people to find actual suitable offers. Whilst there are a lot of offers for lonely people available, the trick is to guide them to those offers. Some countries have enabled online maps for locations, often with some level of content filtering. This is particularly prevalent in Germany where completely uncoordinated from each other now 14 different maps have sprung about, each of them mapping to some degree and success local offers. However genuine feedback beyond anecdotal comments is still outstanding. Furthermore the labelling usually as 'offering for lonely people' potentially triggers held stigmata in the connection seeking person.

One interesting perspective is to consider that these maps are actually not there primarily to help the lonely person themselves, but to structure the information centrally and efficiently for the social worker or link worker to find suitable offers for the person they are trying to support and activate to seek such offers.

Examples: Kontaktgelegenheitskarte of Initiative GemEinsamkeit, Angebotskarte of Kompetenznetz Einsamkeit, Angebotskarte of Federal State of NRW, ...

Cost: The main cost incurred is the time cost of filling in the offers and keeping it up to date. This can be automatised. Whereas a simple map can be maintained for about 15-20 USD per month, other projects cost a multiple of that. In the case of Hamburg, a large city with about a million inhabitants, a tightly maintained map with direct and regular contact to the local agents cost about 100k EUR in IT and personnel cost p.a. **Scale economies**: These maps benefit from scale economies. Every added offer makes the whole more valuable, as the likelihood for a single person searching for connection offers

Telephone / online befriending

Signposting and Directing to other offers - apps

There are a number of apps that have entered the market over the past years.

18 Ongoing Projects of Initiative GemEinsamkeit

The rest of this document pursues two objectives. First, it will produce an evidence-informed catalogue of interventions to address loneliness and strengthen social connection, indexed by target population and provider setting (e.g., universities, employers, municipalities, NGOs), and noting for each intervention its core components, delivery context, theory of change (where stated), and strength of evidence (including formal evaluations where available). Second, for target group × provider pairings where no suitable intervention can be identified, the document will document the gap and initiate structured concept development, including proposed mechanisms of action, delivery modalities, resource requirements, and clear outcome goals for subsequent piloting and evaluation. Representative projects are listed below.

18.1 Standardisation of Network Report Questionnaire

One important item is the formation of a standard network report questionnaire to cover the common items of network questions to cover the network vs loneliness / connection perception question. One such proposal is placed at www.initiative-gemeinsamkeit.de/network-map/ with a focus on friendship ties and their quality as well as third places and communities.

18.2 Loneliness and Connection Awareness teaching

While many existent media have jumped on the loneliness bandwagon, and are writing and showing reports on the feeling of loneliness, less focus is placed on what can be done to help people. As the first aspect is some form of awareness teaching and focused social skills training and encouragement to make connections, the question is what 'curriculum' should be allowed here. There are many different levels of material provision possible. At Initiative GemEinsamkeit there are a number of flyers and brochures to give to lonely people, however it is here recommended not to give them, but to use them as a basis for discussion and challenging.

18.3 Contact Formats

Often quoted interventions are contact establishments, befriending, speed friending, and various other formats to bring people together.

- Lonely people with lonely people: get togethers with food provided, walks, etc.
- Lonely people with volunteers: befriending, patronage (Patenschaft), language offers for migrants
- Lonely people with communities: Most church offers aimed at inviting/welcoming people to integrate them, similar with refugee/migrant integration projects

Here the question is what best practices are available. For elderly people there is MIASA (Klein et al., 2020 German), and there are various friendship intervention programs in schools evaluated in some form. What are missing are common standards on how to evaluate their operational effectiveness. Most evaluations are just looking at a change in loneliness feeling reported, less so on the operational cause (better or more connection, network density of ego network, different roles assumed, social skills aquired, ...).

At Initiative GemEinsamkeit there are a few formats of friendship courses for children, adolescents and young adults, over 2026 there will also be more thorough descriptions and pointers to other friendship programs and formats and a design for evaluation of them.

19 Conclusion

This document is meant to just capture the state of research as it is capable to underpin current interventions, and likewise give an overview of different interventions

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