CounselTraj: Generating Realistic Session-Level Counseling Conversations from Brief Synthetic Dialogues via Dialogue-Act Trajectory Planning

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Abstract

The growing demand for psychological counseling has motivated LLM-based systems that support human counselors, but training such models requires large-scale, high-quality counseling dialogue data. Since real counseling data are difficult to collect due to privacy concerns, synthetic counseling dialogues are a promising alternative. However, existing synthetic data, despite covering diverse scenarios and client profiles through persona design, often consist of short exchanges and fail to reflect realistic session-level counseling processes, such as gradual client self-disclosure and flexible counselor responses. To address these limitations, we propose **CounselTraj**, a dialogue-act trajectory planning framework that expands brief synthetic counseling dialogues into realistic session-level counseling conversations. CounselTraj learns dialogue-act patterns from human-collected counseling data, plans session-level dialogue-act trajectories for both clients and counselors, and uses these trajectories to guide long-form dialogue expansion. Experiments show that CounselTraj consistently improves synthetic dialogue quality across multiple datasets, producing more complete and natural counseling sessions. Moreover, expanded dialogues further improve downstream response generation when used to fine-tune an existing counseling model. To facilitate future research, we will publicly release the code and **CounselTrajD**, a Chinese psychological counseling dialogue dataset containing 10k dialogues expanded using CounselTraj.

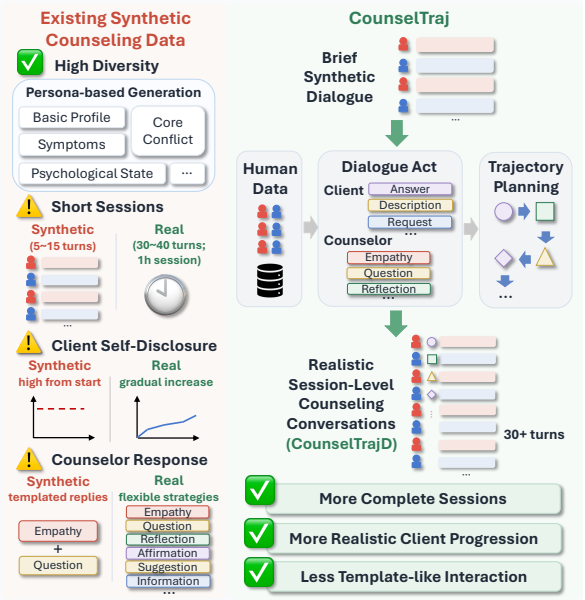

Figure 1: Motivation of CounselTraj. Although existing synthetic counseling data provide diverse scenarios through persona-based generation, they often remain short and lack realistic session-level counseling processes, such as gradual client self-disclosure and flexible counselor responses. CounselTraj expands brief synthetic dialogues into realistic session-level counseling conversations through dialogue-act trajectory planning based on human-collected counseling data.

1 Introduction

Mental health problems are an increasing social concern, while professional counseling resources remain insufficient (WHO, 2022). Online counseling, with its accessibility and scalability, has emerged as an important way to expand psychological support (Casu et al., 2024). In this context, intelligent dialogue systems may assist human counselors and improve the efficiency and coverage of online counseling services. Recent advances in large language models (LLMs) have created new opportunities for counseling-support systems (Hua et al., 2025). However, training such systems requires large-scale, high-quality counseling dialogue data. Because real counseling conversations contain highly sensitive personal information, their collection and release are constrained by privacy and ethical concerns, leaving human-collected counseling dialogue resources limited (Qi et al., 2025). To address this data scarcity, many studies have explored generating psychological counseling

Type	Dataset	Language	Dialogues	Avg. Utterances	Turns after merging			
					Avg.	Min	Max	Median
Synthetic	SmileChat (Qiu et al., 2024)	ZH	55,165	11.39	5.61	0	19	6.0
	CPsyCounD (Zhang et al., 2024)	ZH	3,084	16.14	7.85	2	30	8.0
	CACTUS (Lee et al., 2024)	EN	31,577	30.53	14.97	10	17	15.0
	PsyDTCorpus (Xie et al., 2025)	ZH	4,760	36.16	18.08	9	35	18.0
Human	AnnoMI (Wu et al., 2022)	EN	133	72.92	36.05	3	299	23.0
	KokoroChat (Qi et al., 2025)	JA	6,589	91.20	35.51	8	129	34.0
	PsyDial-D4 (Qiu and Lan, 2025)	ZH	2,382	75.59	37.80	9	120	35.0

Table 1: Statistics of synthetic and human-collected counseling dialogue datasets. Turns are counted after merging adjacent utterances from the same speaker and excluding incomplete client–counselor exchanges. (For SmileChat, some dialogues contain only a single utterance, e.g., dialogue 20493 and 41569; these cases are counted as 0 turns.)

dialogues with LLMs (Qiu et al., 2024; Zhang et al., 2024; Xie et al., 2025). Recent studies have constructed scenario-diverse counseling data by specifying client-related information, such as personality traits, symptoms, psychological states, and core conflicts (Lee et al., 2024; Wu et al., 2026). However, content diversity alone does not ensure counseling realism. Counseling is a dynamic process involving stage progression, relationship building, gradual exploration, and adaptive interventions, rather than a simple exchange of information (Fu et al., 2024). Therefore, synthetic data must reflect realistic counseling processes and client–counselor interaction patterns to better support the training of high-quality counseling dialogue systems.

However, current synthetic counseling dialogues still fall short in modeling realistic counseling processes. As shown in Figure 1, they have three main limitations. First, existing synthetic dialogues are much shorter than human-collected counseling sessions (Table 1), making it difficult to cover a full counseling process, such as problem presentation, emotional expression, causal exploration, and coping discussion. Second, clients in synthetic data often disclose extensive background information from the beginning, whereas real clients usually disclose gradually as trust is built and the counselor provides appropriate guidance. Third, counselor responses tend to be template-like, often repeatedly following a fixed empathy-then-question pattern[1]. In contrast, professional counselors flexibly choose interventions according to the counseling stage and the client's state, such as reflection, clarification, affirmation, information provision, and suggestions. As a result, models trained on such data may learn unnatural client progression and rigid counselor response patterns, limiting their usefulness in counseling-support scenarios.

To address these limitations, we propose **CounselTraj**, a dialogue-act trajectory planning framework for expanding brief synthetic counseling dialogues into realistic session-level conversations. CounselTraj builds on existing brief synthetic dialogues, which already provide diverse client profiles and topics, and enriches them by modeling client–counselor interactions using dialogue-act patterns learned from human counseling data. Specifically, CounselTraj first extracts dialogue-act patterns from real counseling sessions. It then generates dialogue-act trajectories for both the client and the counselor according to the input brief dialogue, and uses these trajectories to guide the expansion into longer, more complete, and more realistic session-level counseling conversations.

Our contributions are fivefold. (1) We systematically compare synthetic and human-collected counseling dialogues, revealing key gaps in dialogue length and client behavior in current synthetic data. (2) We propose CounselTraj, a dialogue-act trajectory planning framework that expands brief synthetic counseling dialogues into more complete and realistic session-level conversations. (3) Experiments demonstrate that CounselTraj consistently improves synthetic dialogue quality across multiple datasets, especially in session completeness, counselor intervention quality, and client engagement. (4) We further show that CounselTraj-expanded dialogues can improve downstream counseling response generation when used for model training. (5) We construct and will publicly release **CounselTrajD**, a Chinese session-level counseling dialogue dataset with 10k dialogues expanded from diverse seeds selected from 63k dialogues in SmileChat, CPsyCounD, and PsyDTCorpus.

[1] See Tables 7 and 8 in the Appendix A.1 for examples.

2 Related Work

2.1 AI for Mental Health Support

Research on AI for mental health support has evolved from empathetic dialogue modeling to counseling-oriented systems (Hu et al., 2026; Kim et al., 2025; Qiu et al., 2025b,a, 2026). Early studies focused on emotion recognition and empathetic response generation, supported by datasets such as EmpatheticDialogues (Rashkin et al., 2019). Subsequent work analyzed empathy in online mental health support and explored empathic rewriting and human–AI collaboration (Sharma et al., 2020, 2021, 2023). Emotional support dialogue has also been studied through datasets such as ESConv, which provides multi-turn conversations annotated with helping strategies (Liu et al., 2021). More recently, counseling-oriented LLMs and agents, including SoulChat, MeChat, and embodied counseling agents, have been proposed for mental health applications (Chen et al., 2023; Qiu et al., 2024; Wu et al., 2026). Recent studies have also examined user experience, safety, trust, and co-design in conversational mental health systems (Song et al., 2025; Wester et al., 2024; Poulsen et al., 2025). Overall, these studies highlight the potential of conversational AI for mental health support.

2.2 Psychological Counseling Dialogue Data and Construction Methods

Psychological counseling datasets are commonly constructed through human collection or LLM-based synthesis. Human-collected datasets, such as those derived from public videos, reconstructed online counseling, or counselor role-play, better capture realistic session-level counseling processes but are limited in scale by privacy, ethical, and cost constraints (Wu et al., 2022; Qi et al., 2025; Qiu and Lan, 2025). In contrast, LLM-generated datasets can be efficiently created by specifying client profiles, symptoms, psychological states, core conflicts, or therapy-related scenarios, providing diverse topics and client situations (Qiu et al., 2024; Zhang et al., 2024; Lee et al., 2024; Xie et al., 2025; Wu et al., 2026). However, they often remain short and lack realistic long-term counseling dynamics.

CounselTraj expands diverse synthetic dialogues through dialogue-act trajectory planning based on human counseling data, preserving topic diversity while introducing more realistic session-level counseling processes.

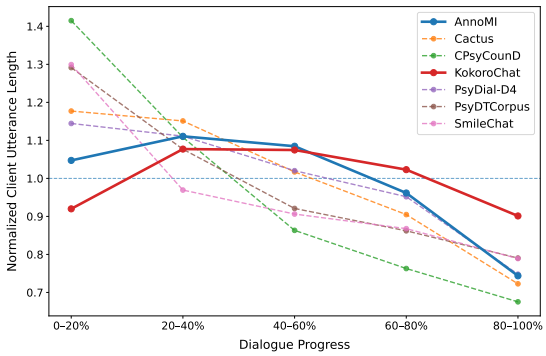

Figure 2: Comparison of stage-wise changes in normalized client utterance length across datasets. Solid lines indicate datasets with human client utterances.

3 Synthetic vs. Human-Collected Data

To clarify the gaps between synthetic and human-collected counseling data, we analyze their dialogue length and client expression patterns.

3.1 Dialogue Length Analysis

As shown in Table 1, human-collected datasets generally contain longer counseling sessions. KokoroChat and PsyDial-D4 were collected as one-hour online text-based counseling sessions, with average turns of 35.51 and 37.80 after merging adjacent utterances from the same speaker. AnnoMI, which consists of transcripts of face-to-face counseling videos, also has an average of 36.05 turns. In contrast, synthetic counseling datasets contain substantially fewer turns on average. This gap may prevent current synthetic data from sufficiently capturing processes that unfold in real counseling sessions, such as stage progression, client development, and counselor interventions.

3.2 Client Expressions and Dialogue Acts

Stage-wise utterance length. To examine stage-wise changes in client expression, we analyze client utterance length across dialogue progress. Following prior work (Althoff et al., 2016), we divide each dialogue into five equal stages and compute the normalized client utterance length in each stage relative to the dialogue-level average. As shown in Figure 2, KokoroChat shows a typical increase-then-decrease pattern: clients begin with shorter utterances, provide more detailed descriptions and self-disclosures as the session develops, and become shorter again in later stages as counselors provide more summaries, suggestions, or coping strategies. AnnoMI shows a similar trend. In contrast, synthetic datasets generally show a gradual

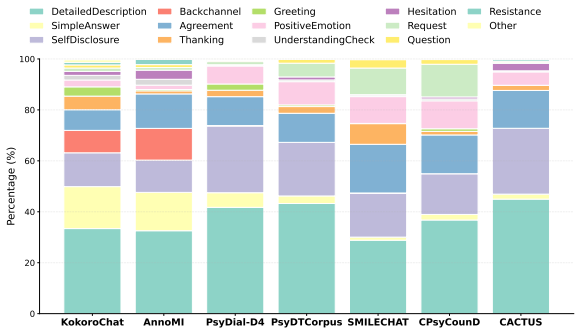

Figure 3: Client-side dialogue-act distribution.

Role	Dialogue-act tags
Client	DetailedDescription, UnderstandingCheck, SimpleAnswer, Agreement, Request, SelfDisclosure, PositiveEmotion, Backchannel, Question, Hesitation, Resistance, Greeting, Thanking, Other
Counselor	OpenQuestion, ClosedQuestion, Paraphrase, Reflection, Affirm, Suggest, Inform, Backchannel, Greeting, Thanking, Other

Table 2: Tags for client and counselor utterances.

decrease, suggesting that clients tend to provide substantial information from the beginning and lack the gradual development of expression observed in real counseling. PsyDial-D4 shows a similar trend to synthetic data, possibly because its client utterances were generated by LLMs for privacy.

Dialogue-act analysis. To further compare client expression patterns, we annotate client utterances using the dialogue-act tags introduced later in Section 4.1 and summarized in Table 2. We sample 500 dialogues per dataset when available and use all dialogues for AnnoMI; annotations are produced with `gemini-3.1-flash-lite-preview`.

Figure 3 shows the distribution of client-side dialogue acts. KokoroChat and AnnoMI contain notable proportions of *SimpleAnswer* and *Backchannel*, suggesting that clients in human counseling often maintain interaction through short answers and backchannels. In contrast, most synthetic datasets contain fewer such short responses but more *DetailedDescription* and *SelfDisclosure*, indicating a tendency toward information-dense answers and direct disclosure. They also show higher proportions of *PositiveEmotion* and *Request*, suggesting overly cooperative clients who express improvement or actively seek advice. PsyDial-D4 also shows a trend similar to synthetic datasets. Overall, existing synthetic data tend to lack short responses, overemphasize detailed descriptions, and portray clients as overly cooperative. Detailed counts and stage-wise trends are provided in the Appendix A.

4 Proposed Framework

Based on the analysis in Section 3, we use KokoroChat as the foundation of our method, since it was collected under the setting of one-hour online counseling sessions with both roles played by trained counselors, providing both professionalism and realism. We call our framework **CounselTraj**, as it expands brief synthetic counseling dialogues through dialogue-act trajectory planning.

As shown in Figure 4, we first select high-quality dialogues from KokoroChat and proceed as follows: (1) automatically annotate dialogue acts using LLMs, (2) construct brief dialogues through few-shot prompting, (3) train a dialogue-act trajectory planning model, (4) use the model to plan dialogue-act trajectories for existing synthetic dialogues, and (5) expand them into session-level psychological counseling dialogues.

4.1 Dialogue-Act Annotation

To model the behaviors of both clients and counselors in human counseling, we design separate dialogue-act tag sets for client and counselor utterances, referring to several prior studies. The tag set is shown in Table 2, and detailed definitions are provided in Appendix B.1 Table 10.

KokoroChat provides client feedback scores that reflect the perceived quality of each counseling session. We applied automatic dialogue-act annotation to 1,006 high-quality KokoroChat dialogues with client feedback scores of at least 80 and at least 80 utterances, aiming to model session-level dialogue-act patterns from sufficiently long counseling sessions. Counselor-side tags were annotated using `gemini-2.5-flash`, while client-side tags were annotated using `gemini-3.1-flash-lite-preview`.[2] The annotation prompts are shown in Appendix B.

To validate annotation reliability, we conducted human agreement evaluation using Cohen's κ (Cohen, 1960). For counselor-side tags, 318 utterances from five KokoroChat dialogues were annotated by two crowd workers, yielding $\kappa = 0.674$ between workers and $\kappa = 0.647/0.644$ between Gemini

[2]The two annotation tasks were conducted at different experimental stages, and we used the Gemini model version available at each stage.

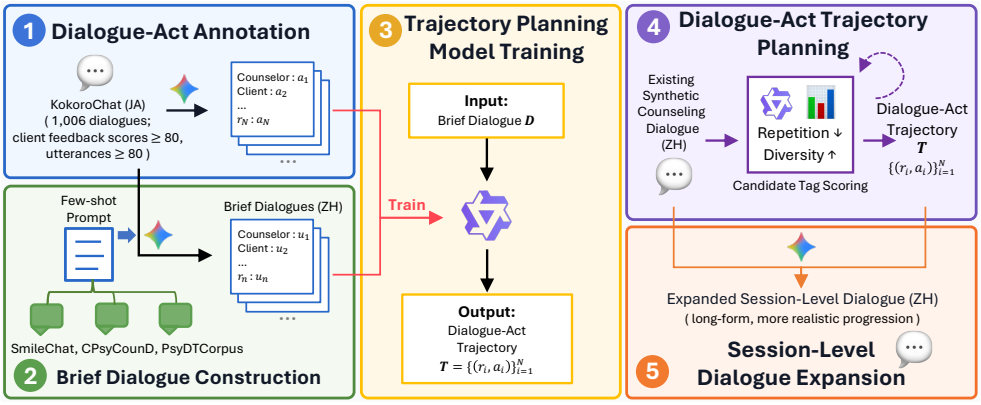

Figure 4: Overview of CounselTraj. High-quality Japanese counseling dialogues from KokoroChat are first annotated with dialogue acts and used to construct brief Chinese dialogues through few-shot prompting. A dialogue-act trajectory planning model is then trained to generate session-level dialogue-act trajectories, which guide the expansion of brief synthetic counseling dialogues into more realistic session-level conversations.

and each worker. For client-side tags, 389 utterances from five dialogues were annotated, yielding $\kappa = 0.582$ between workers and $\kappa = 0.547/0.544$ between Gemini and each worker. These results indicate moderate agreement, suggesting that the automatic annotations are sufficiently reliable for subsequent analysis and modeling.

4.2 Brief Dialogue Construction

To train the dialogue-act trajectory planning model, we construct pairs of brief dialogue inputs and session-level dialogue-act trajectories. Specifically, we use `gemini-3.1-flash-lite-preview` with few-shot prompting to rewrite long Japanese KokoroChat dialogues into brief Chinese dialogues. Chinese is used because relatively rich synthetic counseling dialogue resources are available in Chinese, making it suitable for applying the proposed expansion method to existing synthetic data. The few-shot examples are selected from SmileChat, CPsyCounD, and PsyDTCorpus, and the full prompt is shown in Appendix B.2.

During rewriting, we preserve the core concern of the original dialogue, while modifying only the expression style and dialogue length. Client utterances are rewritten to resemble existing brief synthetic counseling data, with more complete, structured, and logically organized expressions. Counselor utterances are moderately integrated while preserving their original meanings, resulting in a more compact dialogue structure. No new events, characters, or background information are introduced. Finally, each KokoroChat dialogue is paired with its corresponding brief dialogue, which serves as the input D for the trajectory planning model.

4.3 Trajectory Planning Model Training

After constructing brief dialogues, we train a dialogue-act trajectory planning model. Given a Chinese brief dialogue $D = \{(r_j, u_j)\}_{j=1}^{n}$, where r_j and u_j denote the speaker role and utterance, respectively, the model predicts the complete session-level dialogue-act trajectory $T = \{(r_i, a_i)\}_{i=1}^{N}$ annotated from the original KokoroChat dialogue. Here, a_i denotes the dialogue-act tag. Formally, the model learns the mapping $f_\theta : D \rightarrow T$, enabling it to infer a long-form counseling structure from a brief dialogue.

4.4 Synthetic Dialogue Trajectory Planning

After training the dialogue-act trajectory planning model, we apply it to existing brief synthetic counseling dialogues. Given a brief dialogue D, the model incrementally generates a session-level dialogue-act trajectory $T = \{(r_i, a_i)\}_{i=1}^{N}$, where each next tag is predicted based on D and the previously generated trajectory history $H_{<i}$.

To make the planned trajectory closer to real counseling sessions, we primarily rely on the model prediction, while lightly incorporating statistics estimated from annotated KokoroChat dialogues, including stage-wise tag distributions, global tag distributions, and tag transition probabilities. Specifically, for each candidate tag, we compute $S(a_i) = S_{\mathrm{LM}}(a_i) + S_{\mathrm{stat}}(a_i) - S_{\mathrm{rep}}(a_i) + S_{\mathrm{div}}(a_i)$, where S_{LM} is based on the model probability $p_\theta(a_i \mid D, H_{<i})$, S_{stat} incorporates KokoroChat-based statistical tendencies, S_{rep} penalizes local repetition, and S_{div} encourages tag diversity. At each step, we select the tag with the highest score from the tag set $\mathcal{A}$, $a_i^* = \arg\max_{a \in \mathcal{A}} S(a)$.

During generation, the client and counselor roles are alternated until the trajectory reaches the target length N. The generated trajectory is then used to guide session-level dialogue expansion. Further details of the scoring function and generation procedure are provided in Appendix B.3.

4.5 Session-Level Dialogue Expansion

After obtaining a session-level dialogue-act trajectory for each brief synthetic dialogue, we further generate a complete long-form counseling dialogue using `gemini-3.1-flash-lite-preview`. The model takes both the brief dialogue and the planned dialogue-act trajectory as input, and expands the dialogue while preserving the original topic, emotional state, and problem background. The trajectory guides the speaker role and functional intention of each utterance, but is not treated as a rigid template; minor adjustments are allowed when necessary to improve coherence and naturalness. The prompt is provided in Appendix B.4.

5 Experiment

This study aims to improve the quality of existing synthetic counseling dialogues and examine whether the improved dialogues benefit downstream counseling dialogue modeling. We evaluate CounselTraj through two experiments. First, we compare original brief synthetic dialogues with CounselTraj-expanded session-level dialogues to assess improvements in data quality. Second, we fine-tune a counseling response generation model with the expanded dialogues and evaluate its responses to examine downstream utility.

5.1 Dialogue Quality Evaluation

5.1.1 Experimental Setup

To evaluate the effectiveness of CounselTraj across different sources of synthetic data, we randomly sample 200 dialogues each from SmileChat (Qiu et al., 2024), CPsyCounD (Zhang et al., 2024), and PsyDTCorpus (Xie et al., 2025) as the original brief dialogues, and expand them using CounselTraj. This setting allows us to examine whether the proposed method can improve synthetic dialogues with different original styles and structures. The trajectory planning model is based on Qwen3-8B[3]. For each dialogue, the model generates a session-level dialogue-act trajectory that guides the expansion process. We set $N = 80$ to approximate a relatively complete one-hour online counseling session. Detailed settings are provided in Appendix C.1.

5.1.2 LLM-as-a-Judge Evaluation

To evaluate whether CounselTraj improves the quality of synthetic counseling dialogues, we conduct an LLM-as-a-Judge evaluation following prior work (Zhang et al., 2024; Xie et al., 2025; Qi et al., 2025; Qiu and Lan, 2025). We use GPT-5.4[4], one of the most advanced models currently available, which was not used for dialogue generation, as the evaluator to avoid overlap between the generation and evaluation models. For each sample, the original dialogue and its expanded versions are presented together in a randomly shuffled order, and the evaluator scores them under the same criteria.

We evaluate three dimensions on a 0–5 scale: (1) *Session Completeness*, which assesses whether the dialogue has a clear session structure and a relatively complete development process; (2) *Counselor Intervention Quality*, which assesses the professionalism, supportiveness, and contribution of counselor responses to session progress; and (3) *Client Engagement and Collaboration*, which assesses whether the client expression is realistic, gradually developed, and forms reasonable interactions with the counselor. To improve scoring reliability, the model is required to provide a reason before assigning scores. To reduce order bias, we randomly shuffle the presentation order of the dialogues. The prompt is provided in Appendix C.3.

Results. As shown in Table 3, CounselTraj improves the quality of synthetic counseling dialogues across all data sources. Specifically, the average scores of SmileChat, CPsyCounD, and PsyDTCorpus increase from 1.40, 1.44, and 2.68 to 4.12, 4.11, and 3.70, respectively. Improvements are observed in all three evaluation dimensions, indicating that CounselTraj not only expands brief dialogues into session-level conversations, but also enhances session completeness, counselor intervention quality, and client engagement and collaboration. Moreover, the consistent gains across datasets with different original lengths and styles suggest the general applicability of the proposed framework to diverse synthetic counseling dialogue resources.

Ablation Study. To evaluate the contribution of the trajectory planning model, we conduct an ablation experiment on SmileChat. In *Ours w/o*

[3] https://huggingface.co/Qwen/Qwen3-8B

[4] https://openai.com/index/introducing-gpt-5-4/

Traj., the dialogue-act trajectory is removed, and the original dialogue is directly expanded using `gemini-3.1-flash-lite-preview`. The prompt is kept the same as the full method except for instructions related to the trajectory; the prompts and generated dialogue examples are provided in Appendix C.2 and Appendix C.4, respectively. As shown in Table 3, *Ours w/o Traj.* improves over the original SmileChat, achieving an average score of 3.53, but still underperforms the full method, which achieves 4.12. This suggests that the trajectory provides an session-level structure, helping the model generate long-form dialogues with clearer stage progression and greater completeness.

5.1.3 Human Evaluation

To further examine the reliability of the automatic evaluation, we conducted a human ranking evaluation on all three datasets. For each dataset, we randomly sampled 50 instances and asked three Chinese undergraduate psychology students to rank the dialogue versions, where rank 1 indicates the highest quality. SmileChat includes three versions (*original*, *w/o Traj.*, *ours*), while CPsyCounD and PsyDTCorpus include two (*original*, *ours*). The ranking criterion was a "higher-quality, more standardized counseling dialogue with relatively complete session characteristics." To standardize the criteria, we provided an example from PsyDial-D101[5], a set of 101 counseling dialogues manually collected from professional counseling books by Qiu and Lan (2025). The order of the dialogue versions was randomly shuffled, and the evaluators were blinded to the dialogue source.

Results. As shown in Table 3, CounselTraj achieves the best human ranking results across all three datasets. It outperforms the original dialogues on all datasets and also outperforms *Ours w/o Traj.* on SmileChat. This trend is consistent with the automatic evaluation, indicating that CounselTraj improves synthetic dialogue quality and that dialogue-act trajectories help generate long-form dialogues that are more complete and better aligned with the counseling process.

5.1.4 Comparison with Professional Dialogues

To further examine the quality of expanded dialogues, we compare them with PsyDial-D101, which consists of counseling dialogues from professional books. Three undergraduate students majoring in psychology conducted a pairwise evaluation on 50 dialogue pairs. To reduce the influence of dialogue length, we selected pairs with similar lengths. For each pair, evaluators judged which dialogue was better or whether the two were tied.

The results are shown in Table 4. Although the dialogues expanded by our method do not outperform the professional-book counseling dialogues in PsyDial-D101, they achieve a win-or-tie rate of 54.0%, exceeding half of the comparisons. This result suggests that CounselTraj-expanded dialogues can, to some extent, approach the quality of professional counseling dialogues, demonstrating the effectiveness of the proposed method.

Dialogue Variant	Automatic Evaluation				Human Rank ↓
	Comp.	Int.	Eng.	Avg.	
SmileChat	1.49	1.15	1.56	1.40	2.53
Ours w/o Traj.	3.26	3.66	3.67	3.53	1.95
Ours	**4.53**	**3.67**	**4.17**	**4.12**	**1.52**
CPsyCounD	1.54	1.16	1.62	1.44	1.76
Ours	**4.53**	**3.62**	**4.17**	**4.11**	**1.24**
PsyDTCorpus	3.01	2.37	2.67	2.68	1.71
Ours	**4.06**	**3.32**	**3.71**	**3.70**	**1.29**

Table 3: Automatic and human evaluation results for original and CounselTraj-expanded dialogues from each source dataset. Human Rank denotes the average rank, where lower is better. Comp., Int., and Eng. denote session completeness, counselor intervention quality, and client engagement and collaboration, respectively.

Comparison	Win	Tie	Lose
Ours vs. PsyDial-D101	28.0%	26.0%	46.0%

Table 4: Pairwise human evaluation comparing SmileChat-based CounselTraj-expanded dialogues with professional book dialogues from PsyDial-D101.

5.2 Response Generation Evaluation

To examine the downstream utility of CounselTraj-generated data, we expand 2,000 SmileChat dialogues and use them to further fine-tune MeChat[6], which was originally trained on SmileChat. This setting allows for a more direct comparison by keeping the base model and original data source consistent. We then evaluate the fine-tuned model on counseling response generation.

5.2.1 Experimental Setup

In the response generation experiment, we fine-tune MeChat with 2,000 CounselTraj-expanded

[5] https://huggingface.co/datasets/qiuhuachuan/PsyDial-D101

[6] https://huggingface.co/qiuhuachuan/MeChat

Model	EU	RAL	NJA	CEF	Avg.
MeChat	1.98	2.18	3.65	1.90	2.43
Ours	**2.44**	**2.55**	**4.21**	**2.12**	**2.83**
Professional	2.76	3.56	4.41	3.73	3.61

Table 5: LLM-as-a-Judge evaluation results for counseling response generation. EU, RAL, NJA, and CEF denote empathic understanding, reflective/active listening, non-judgmental acceptance, and collaborative exploration facilitation, respectively. Professional denotes original counselor responses from professional books.

SmileChat dialogues. MeChat is a Chinese counseling dialogue model based on ChatGLM2-6B[7] and trained on SmileChat. We adopt the same LoRA (Hu et al., 2022) fine-tuning setup and hyperparameter settings as the original MeChat training. The model is trained on 6 NVIDIA RTX 6000 Ada 48GB GPUs. Detailed training settings are provided in Appendix D.1. We then compare MeChat and our fine-tuned model on 500 randomly sampled test cases from PsyDial-D101.

5.2.2 LLM-as-a-Judge Evaluation

We also adopt LLM-as-a-Judge to evaluate response quality, using GPT-5.4 as the evaluator. For each test case, responses generated by MeChat, our further fine-tuned model, and professional counselors are presented together in a randomly shuffled order and scored under the same criteria. Each response is rated on a 0–5 scale across four dimensions, with the model required to provide a rationale before assigning scores.

The evaluation dimensions are based on core counseling communication principles: (1) *Empathic Understanding*, which assesses whether the response understands and addresses the client's emotions and subjective experience; (2) *Reflective / Active Listening*, which assesses whether the response reflects the client's key information and main concerns; (3) *Non-judgmental Acceptance*, which assesses whether the response remains respectful, neutral, and accepting; and (4) *Collaborative Exploration Facilitation*, which assesses whether the response collaboratively encourages further expression and exploration. These dimensions correspond to basic counseling principles such as empathic understanding, unconditional positive regard, reflective listening, and collaborative exploration (Rogers, 1957; Hill, 2009). The prompt is provided in the Appendix D.2

[7] https://huggingface.co/zai-org/chatglm2-6b

Comparison	Win	Tie	Lose
Ours vs. MeChat	56.8%	6.0%	37.2%

Table 6: Pairwise human evaluation comparing responses generated by MeChat and our fine-tuned model.

Results. As shown in Table 5, the model further fine-tuned with CounselTraj-expanded data outperforms MeChat across all evaluation dimensions. This indicates that CounselTraj-generated data not only improves synthetic dialogue quality, but also enhances downstream counseling response generation. Examples of generated responses are shown in Appendix D.3. However, a gap remains between the current model and professional counselors.

5.2.3 Human Evaluation

We further conducted a pairwise human evaluation of the responses generated by MeChat and our fine-tuned model. We randomly sampled 50 examples from the test set, and five undergraduate students majoring in psychology participated as evaluators. For each example, the evaluators compared the two responses under the same dialogue history and judged which one was better. The response order was randomly shuffled, and the evaluators were not informed of which model generated each response. As shown in Table 6, our fine-tuned model generally outperforms MeChat and is judged better or comparable in most cases. This result is consistent with the automatic evaluation, further indicating that CounselTraj-expanded data can improve downstream counseling response generation quality.

6 Conclusion

We proposed **CounselTraj**, a dialogue-act trajectory planning framework that expands brief synthetic counseling dialogues into realistic session-level conversations. Experiments showed that CounselTraj improves synthetic dialogue quality across multiple data sources, and the ablation study confirmed the importance of dialogue-act trajectories. Using CounselTraj-expanded dialogues for further fine-tuning also improved downstream counseling response generation. Based on the verified effectiveness of CounselTraj, we further constructed and will publicly release **CounselTrajD**, a large-scale Chinese session-level counseling dialogue dataset containing 10k dialogues expanded using CounselTraj.

Limitations

This study has the following limitations. First, CounselTraj learns session-level dialogue structures mainly from KokoroChat, which is an online text-based counseling dataset. Online text counseling differs from face-to-face counseling in interaction style and session rhythm. Therefore, the session-level dialogue-act structures learned in this study are more directly applicable to text-based counseling, and whether they can be applied to face-to-face counseling support requires further investigation.

Second, this study intentionally uses relatively lightweight model settings to reduce the possibility that the improvement in generation quality is solely due to the stronger capabilities of the generation model. Specifically, in the session-level dialogue expansion stage, we use `gemini-3.1-flash-lite-preview` rather than more powerful state-of-the-art commercial flagship models. In the trajectory planning stage, we also use a model fine-tuned from Qwen3-8B. Larger or more advanced models may further improve the quality of trajectory planning and dialogue expansion, but they would also make it more difficult to distinguish the effect of the proposed method from the capability of the model itself. This study does not fully discuss this aspect. Future work should systematically compare the effects of different model scales and generation models on CounselTraj.

Ethical Considerations

Data Use. This study uses datasets released by prior work and publicly available for research purposes. Specifically, we use SmileChat (Qiu et al., 2024), CPsyCounD (Zhang et al., 2024), and PsyDTCorpus (Xie et al., 2025), which are released under the CC0-1.0, CC-BY-4.0, and Apache-2.0 licenses, respectively. These datasets had undergone anonymization and personal information checks before release. In this study, we use them consistently with their intended research purposes and license conditions, further annotate part of the data with dialogue-act labels, and use them for analysis and model training. We also construct CounselTrajD, a derived dataset expanded from synthetic seed dialogues; therefore, it does not intentionally introduce additional real personal information. CounselTrajD is intended for research use only, such as studying counseling dialogue modeling, synthetic data generation, and response generation, and should not be used as a standalone counseling, clinical, or mental health intervention system. We plan to release the relevant data only after ensuring that the release complies with the corresponding data usage policies and license conditions.

Annotation and Evaluation Compensation. For the dialogue-act annotation validation, Japanese crowd workers were recruited and compensated 3,300 JPY. They were informed of the study purpose before participation, participation was voluntary, and they could withdraw at any time. The collected annotations were used only to assess agreement between human and LLM-based annotations and will not be publicly released. For the human evaluations, participants were compensated at a rate of 50 RMB per hour, which we considered appropriate given their country/region of residence and the required workload. They were informed of the study purpose, participated voluntarily, and could withdraw at any time. The evaluations were limited to assessing dialogue and response quality for research purposes. Participants were not asked to provide counseling, diagnosis, or therapeutic intervention, nor to disclose personal information or private experiences.

Use of Counseling Response Generation Models. Although this study involves counseling dialogue data and fine-tunes a counseling response generation model, the resulting model is intended only for research purposes. It should not be used as a standalone psychological counseling or mental health support system. Generated responses may contain inappropriate, insufficient, or clinically unsafe content, and the experimental results should be interpreted with caution. Any real-world application of such models would require further expert validation, safety assessment, and appropriate human oversight.

References

Tim Althoff, Kevin Clark, and Jure Leskovec. 2016. Large-scale analysis of counseling conversations: An application of natural language processing to mental health. *Transactions of the Association for Computational Linguistics*, 4:463–476.

Mirko Casu, Sergio Triscari, Sebastiano Battiato, Luca Guarnera, and Pasquale Caponnetto. 2024. Ai chatbots for mental health: A scoping review of effectiveness, feasibility, and applications. *Applied Sciences*, 14:5889.

Yirong Chen, Xiaofen Xing, Jingkai Lin, Huimin Zheng, Zhenyu Wang, Qi Liu, and Xiangmin Xu. 2023. SoulChat: Improving LLMs' empathy, listening, and comfort abilities through fine-tuning with multi-turn empathy conversations. In *Findings of the Association for Computational Linguistics: EMNLP 2023*, pages 1170–1183, Singapore. Association for Computational Linguistics.

Jacob Cohen. 1960. A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20(1):37–46.

Tim Dettmers, Artidoro Pagnoni, Ari Holtzman, and Luke Zettlemoyer. 2023. QLoRA: Efficient finetuning of quantized LLMs. In *Advances in Neural Information Processing Systems*.

Ziru Fu, Yu Cheng Hsu, Christian S. Chan, Joyce Liu, and Paul S. F. Yip. 2024. Using hidden markov modelling to reveal in-session stages in text-based counselling. *npj Mental Health Research*, 3:56.

Clara E. Hill. 2009. *Helping Skills: Facilitating Exploration, Insight, and Action*, 3 edition. American Psychological Association.

Edward J. Hu, Yelong Shen, Phillip Wallis, Zeyuan Allen-Zhu, Yuanzhi Li, Shean Wang, Lu Wang, and Weizhu Chen. 2022. Lora: Low-rank adaptation of large language models. In *International Conference on Learning Representations*.

Jinpeng Hu, Ao Wang, Qianqian Xie, Zhuo Li, Hui Ma, and Dan Guo. 2026. AgentMental: An interactive multi-agent framework for explainable and adaptive mental health assessment. In *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 31050–31058.

Yining Hua, Hongbin Na, Zehan Li, Fenglin Liu, Xiao Fang, David Clifton, and John Torous. 2025. A scoping review of large language models for generative tasks in mental health care. *npj Digital Medicine*, 8(1):230.

Minju Kim, Dongje Yoo, Yeonjun Hwang, Minseok Kang, Namyoung Kim, Minju Gwak, Beong-woo Kwak, Hyungjoo Chae, Harim Kim, Yunjoong Lee, Min Hee Kim, Dayi Jung, Kyong-Mee Chung, and Jinyoung Yeo. 2025. Can you share your story? modeling clients' metacognition and openness for LLM therapist evaluation. In *Findings of the Association for Computational Linguistics: ACL 2025*, pages 25943–25962, Vienna, Austria. Association for Computational Linguistics.

Suyeon Lee, Sunghwan Kim, Minju Kim, Dongjin Kang, Dongil Yang, Harim Kim, Minseok Kang, Dayi Jung, Min Hee Kim, Seungbeen Lee, Kyong-Mee Chung, Youngjae Yu, Dongha Lee, and Jinyoung Yeo. 2024. Cactus: Towards psychological counseling conversations using cognitive behavioral theory. In *Findings of the Association for Computational Linguistics: EMNLP 2024*, pages 14245–14274, Miami, Florida, USA. Association for Computational Linguistics.

Siyang Liu, Chujie Zheng, Orianna Demasi, Sahand Sabour, Yu Li, Zhou Yu, Yong Jiang, and Minlie Huang. 2021. Towards emotional support dialog systems. In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pages 3469–3483, Online. Association for Computational Linguistics.

Adam Poulsen, Ian B Hickie, Zsofi de Haan, William Capon, Haley M LaMonica, Ebenezer Eyeson-Annan, Jalal Radwan, Nia Barnabie, Elizabeth M Scott, and Frank Iorfino. 2025. Co-designing a conversational generative artificial intelligence system for youth mental health. In *Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*, CHI EA '25, New York, NY, USA. Association for Computing Machinery.

Zhiyang Qi, Takumasa Kaneko, Keiko Takamizo, Mariko Ukiyo, and Michimasa Inaba. 2025. KokoroChat: A Japanese psychological counseling dialogue dataset collected via role-playing by trained counselors. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 12424–12443, Vienna, Austria. Association for Computational Linguistics.

Huachuan Qiu, Zhaoming Chen, Yuqian Chen, Yuan Xie, Yu Lu, and Zhenzhong Lan. 2026. PsyCLIENT: Client simulation via conversational trajectory modeling for trainee practice and model evaluation in mental health counseling. *Preprint*, arXiv:2601.07312.

Huachuan Qiu, Hongliang He, Shuai Zhang, Anqi Li, and Zhenzhong Lan. 2024. SMILE: Single-turn to multi-turn inclusive language expansion via ChatGPT for mental health support. In *Findings of the Association for Computational Linguistics: EMNLP 2024*, pages 615–636, Miami, Florida, USA. Association for Computational Linguistics.

Huachuan Qiu and Zhenzhong Lan. 2025. PsyDial: A large-scale long-term conversational dataset for mental health support. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 21624–21655, Vienna, Austria. Association for Computational Linguistics.

Jiahao Qiu, Yinghui He, Xinzhe Juan, Yimin Wang, Yuhan Liu, Zixin Yao, Yue Wu, Xun Jiang, Ling Yang, and Mengdi Wang. 2025a. EmoAgent: Assessing and safeguarding human-AI interaction for mental health safety. In *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing*, pages 11741–11756, Suzhou, China. Association for Computational Linguistics.

Wenyu Qiu, Yuxiong Wang, Jiajun Tan, Hanchao Hou, Qinda Liu, Wei Yao, and Shiguang Ni. 2025b. DeepWell-adol: A scalable expert-based dialogue

corpus for adolescent positive mental health and well-being promotion. In *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing*, pages 12786–12810, Suzhou, China. Association for Computational Linguistics.

Hannah Rashkin, Eric Michael Smith, Margaret Li, and Y-Lan Boureau. 2019. Towards empathetic open-domain conversation models: A new benchmark and dataset. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, pages 5370–5381, Florence, Italy. Association for Computational Linguistics.

Jeff Rasley, Samyam Rajbhandari, Olatunji Ruwase, and Yuxiong He. 2020. DeepSpeed: System optimizations enable training deep learning models with over 100 billion parameters. In *Proceedings of the 26th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining*, pages 3505–3506. Association for Computing Machinery.

Carl R. Rogers. 1957. The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 21(2):95–103.

Ashish Sharma, Inna W. Lin, Adam S. Miner, David C. Atkins, and Tim Althoff. 2021. Towards facilitating empathic conversations in online mental health support: A reinforcement learning approach. In *Proceedings of the Web Conference 2021*, WWW '21, page 194–205, New York, NY, USA. Association for Computing Machinery.

Ashish Sharma, Inna W. Lin, Adam S. Miner, David C. Atkins, and Tim Althoff. 2023. Human–ai collaboration enables more empathic conversations in text-based peer-to-peer mental health support. *Nature Machine Intelligence*, 5:46–57.

Ashish Sharma, Adam Miner, David Atkins, and Tim Althoff. 2020. A computational approach to understanding empathy expressed in text-based mental health support. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 5263–5276, Online. Association for Computational Linguistics.

Inhwa Song, Sachin R Pendse, Neha Kumar, and Munmun De Choudhury. 2025. The typing cure: Experiences with large language model chatbots for mental health support. *Proc. ACM Hum.-Comput. Interact.*, 9(7).

Joel Wester, Henning Pohl, Simo Hosio, and Niels van Berkel. 2024. "this chatbot would never...": Perceived moral agency of mental health chatbots. *Proc. ACM Hum.-Comput. Interact.*, 8(CSCW1).

WHO. 2022. World mental health report: Transforming mental health for all. Technical report, World Health Organization.

Lixiu Wu, Yuanrong Tang, Qisen Pan, Xianyang Zhan, Yuchen Han, Lanxi Xiao, Tianhong Wang, Chen Zhong, and Jiangtao Gong. 2026. An LLM-based simulation framework for embodied conversational agents in psychological counseling. In *Proceedings of the AAAI Conference on Artificial Intelligence*, volume 40, pages 29758–29766.

Zixiu Wu, Simone Balloccu, Vivek Kumar, Rim Helaoui, Ehud Reiter, Diego Reforgiato Recupero, and Daniele Riboni. 2022. Anno-mi: A dataset of expert-annotated counselling dialogues. In *ICASSP 2022 - 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 6177–6181.

Haojie Xie, Yirong Chen, Xiaofen Xing, Jingkai Lin, and Xiangmin Xu. 2025. PsyDT: Using LLMs to construct the digital twin of psychological counselor with personalized counseling style for psychological counseling. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 1081–1115, Vienna, Austria. Association for Computational Linguistics.

Chenhao Zhang, Renhao Li, Minghuan Tan, Min Yang, Jingwei Zhu, Di Yang, Jiahao Zhao, Guancheng Ye, Chengming Li, and Xiping Hu. 2024. CPsyCoun: A report-based multi-turn dialogue reconstruction and evaluation framework for Chinese psychological counseling. In *Findings of the Association for Computational Linguistics: ACL 2024*, pages 13947–13966, Bangkok, Thailand. Association for Computational Linguistics.

A Additional Details of Data Analysis

This section provides additional details for the data analysis in Section 3, including examples of template-like counselor responses, detailed statistics of client-side dialogue-act annotations, stage-wise dialogue-act trends, and prompts used for automatic annotation.

A.1 Examples of Template-like Counselor Responses

Table 7 and Table 8 show examples of template-like counselor responses from PsyDTCorpus (Xie et al., 2025) and CPsyCounD (Zhang et al., 2024), respectively. The PsyDTCorpus example corresponds to `id=3864` in `PsyDTCorpus_train_mulit_turn_packing.json` from the Hugging Face dataset.[8] The CPsyCounD example corresponds to `case=1757` and is available from the CPsyCounD repository.[9]

A.2 Detailed Statistics of Client-side Dialogue Acts

Table 9 provides detailed counts and percentages of client-side dialogue-act tags for each dataset. These statistics complement the distributional analysis in Figure 3.

A.3 Stage-wise Trends of Client-side Dialogue Acts

To further examine how client behaviors change over the course of counseling, we analyze the stage-wise trends of each client-side dialogue act. Each dialogue is divided into five equal stages according to dialogue progress, and the frequency of each tag is computed for each stage. Figure 5 shows the stage-wise changes of client-side dialogue act tags across datasets. Solid lines indicate datasets with human clients.

The results reveal several differences between human and synthetic clients. First, *SimpleAnswer* and *Backchannel*, which are closely related to natural conversational flow, appear more frequently in human-client datasets. In particular, *SimpleAnswer* in human-client data gradually decreases as the dialogue progresses. This suggests that human clients often begin the session with short and simple responses, and then gradually move toward more elaborated expressions as the counseling dialogue develops. *Backchannel* also appears consistently in human-client datasets, especially in KokoroChat and AnnoMI, whereas it is almost absent in most synthetic datasets. This indicates that human clients naturally use brief responses to maintain interactional rhythm, while synthetic clients tend to lack such subtle conversational behaviors.

Another notable difference is observed in *Resistance*. Human clients show more frequent *Resistance* than most synthetic clients, suggesting that real counseling dialogues often involve hesitation, reluctance, disagreement, or difficulty in immediately accepting the counselor's perspective. Such behaviors are important for representing the gradual and sometimes non-linear process of counseling. In contrast, synthetic clients appear to be more cooperative and less resistant, which may make the dialogue progression smoother but less realistic.

Synthetic clients also show different tendencies in advice-seeking behaviors. Some synthetic datasets contain much more frequent *Request*, indicating that synthetic clients are more likely to explicitly ask for advice or solutions. This may reflect a simplified view of counseling conversations, where the client clearly presents a problem and directly asks the counselor what to do. However, in human-client datasets, requests are less dominant, and clients often express their concerns through descriptions, hesitation, or self-disclosure rather than direct advice-seeking.

Finally, synthetic clients, especially in the later stages of the dialogue, tend to express *PositiveEmotion* more frequently. This suggests that synthetic counseling dialogues may often end with an overly positive or simplified closing pattern, where the client quickly becomes reassured or satisfied. Human-client datasets show a more moderate increase, indicating that real clients may not always shift strongly toward positive emotions by the end of the session.

Overall, these stage-wise patterns suggest that synthetic clients differ from human clients not only in the overall frequency of dialogue act tags, but also in how these behaviors are distributed across the course of counseling. Human-client dialogues contain more interactional and gradual behaviors, such as short responses, backchannels, and resistance, whereas synthetic dialogues tend to show more explicit requests and stronger positive emotional expressions toward the end. These findings highlight the importance of modeling stage-wise

[8] https://huggingface.co/datasets/lilili123456/PsyDTCorpus/blob/main/PsyDTCorpus_train_mulit_turn_packing.json

[9] https://github.com/CAS-SIAT-XinHai/CPsyCoun/tree/main/CPsyCounD

Role	Utterance
Client	你好，我近来有点不知所措。我男朋友总是给我一些惊喜，虽然我很开心，但也会有点愧疚感。 (*Hello. Lately, I have been feeling a bit overwhelmed. My boyfriend often gives me little surprises. Although I feel very happy, I also feel somewhat guilty.*)
Counselor	你好呀，能够听到你的内心声音我感到很荣幸。让我们一起慢慢探讨这份愧疚感的来源吧。 你能描述一下，每当收到他的惊喜，你的感受如何转变的吗？ (*Hello. I feel honored to hear your inner thoughts. Let us slowly explore where this sense of guilt comes from. Could you describe how your feelings change whenever you receive one of his surprises?*)
Client	嗯，每次当我收到他的惊喜，比如他送的水果或者奶茶，我一开始真的很高兴。但很快，我就会开始感到不安，感觉自己应该以某种方式回报他。 (*Well, every time I receive a surprise from him, such as fruit or milk tea, I feel really happy at first. But very quickly, I start to feel uneasy, as if I should repay him in some way.*)
Counselor	你的感受很正常，很多人在接收到别人的好意时都会有想要回报的冲动。 这种想法背后，你认为自己为何感到需要回报呢？ (*Your feelings are very normal. Many people feel an impulse to return the favor when they receive kindness from others. Behind this thought, why do you think you feel the need to repay him?*)
Client	我不知道，可能是因为我不想感觉欠他的，总觉得应该回赠同等价值的礼物或者直接转账给他。 (*I am not sure. Maybe it is because I do not want to feel like I owe him. I always feel that I should give him a gift of equal value in return, or transfer money to him directly.*)
Counselor	感谢你的坦诚。在你眼中，接受礼物是一种亏欠感，这可能与你对平等的理解有关。 这样的想法对你来说很重要吗？ (*Thank you for being honest. In your view, accepting a gift seems to create a sense of indebtedness, which may be related to your understanding of equality. Is this idea very important to you?*)
Client	是的，我想我一直都很重视公平和平等，无论是在工作还是在人际关系上。 (*Yes. I think I have always valued fairness and equality, whether at work or in relationships.*)
Counselor	你很重视公平和平等，这体现了你的责任心和宜人性。 在你的男朋友看来，你的这种回报方式是如何的呢？ (*You place great importance on fairness and equality, which reflects your sense of responsibility and agreeableness. From your boyfriend's perspective, how does he see this way of repaying him?*)
Client	他不太高兴，说我这是在撇清我们之间的关系，他可能不理解我的想法吧。 (*He is not very happy about it. He says I am trying to distance myself from our relationship. Maybe he does not understand what I am thinking.*)
Counselor	感受到伴侣的不高兴确实挺难受的。 你有尝试跟他解释你的想法吗，或者你们有没有就这个问题进行过深入的交流？ (*It must feel quite difficult to sense that your partner is unhappy. Have you tried explaining your thoughts to him, or have the two of you had a deeper conversation about this issue?*)
Client	我试过，但每次我们都在这个问题上争执。我尝试解释我只是想要公平交换，但他似乎不买账。 (*I have tried, but every time we end up arguing about it. I try to explain that I just want a fair exchange, but he does not seem to accept it.*)
Counselor	我理解你们之间出现了一些沟通上的误解。也许你们需要找到一种双方都感觉舒适的表达方式。 你认为愿意尝试新的方式来解决这个状况吗？ (*I understand that there seem to be some communication misunderstandings between you two. Perhaps you need to find a way of expressing yourselves that feels comfortable for both of you. Would you be willing to try a new approach to resolve this situation?*)
Client	我愿意尝试，但真不知道应该怎么做。你有什么建议吗？ (*I am willing to try, but I really do not know what to do. Do you have any suggestions?*)
Counselor	既然你对于物质上的回馈感到困扰，我们可以从情感上的回馈出发。 例如，你可以尝试表达你的感激之情，或者通过共度美好时光来回报他的礼物。 听起来你会怎样想？ (*Since you feel troubled by material forms of repayment, we can start with emotional forms of giving back. For example, you could try expressing your gratitude, or repay his gifts by spending meaningful time together. How does that sound to you?*)
Client	这听起来不错。但如果不是同等价值的话，我可能还是会有点不舒服。 (*That sounds good. But if it is not of equal value, I may still feel a little uncomfortable.*)
Counselor	这很正常。我们可以一步步来，首先是调整你对于回报的定义。 你是否认为情感上的回馈也同样珍贵？ (*That is very normal. We can take it step by step. First, we can adjust your definition of repayment. Do you think emotional responses can be just as valuable?*)
Client	我想是的，情感的回馈应该同样重要。 (*I think so. Emotional responses should be just as important.*)
Counselor	这是一个很好的开始，你已经开始拓展你对于回馈的理解了。让我们从小事做起。 你有没有想过为他做一些特别的事情，这些不一定需要花费金钱，但可能会给他留下深刻的印象？ (*That is a very good start. You have already begun to broaden your understanding of giving back. Let us start with small things. Have you ever thought about doing something special for him, something that does not necessarily cost money but may leave a deep impression on him?*)
Client	我可以尝试做他喜欢吃的晚餐，或者为我们的约会制定一个特别的计划。 (*I could try making a dinner he likes, or planning a special date for us.*)
Counselor	这个想法很棒！感觉上你已经有一些新的思考了。 你对于试着做出这样的改变感到怎样？ (*That is a wonderful idea. It seems that you already have some new thoughts. How do you feel about trying to make this kind of change?*)

Table 7: Example of template-like counselor responses from PsyDTCorpus. The counselor shows a repeated empathy-then-question response tendency. English translations in parentheses were generated by GPT-5.5.

client behaviors when constructing more realistic synthetic counseling dialogues.

A.4 Prompts for Client-side Dialogue-act Annotation

This section presents the prompt used for automatic dialogue-act annotation of client utterances. Specifically, each client utterance is assigned one of the predefined client-side dialogue act tags listed in Table 2. We used `gemini-3.1-flash-lite-preview` as the annotation model. The full prompt used for this annotation is shown below.

A.5 Prompts for Client-side Dialogue-act Annotation

This section presents the prompts used for automatic dialogue-act annotation of client utterances. Each client utterance was assigned one of the predefined client-side dialogue act tags listed in Table 2. We used `gemini-3.1-flash-lite-preview` as the annotation model. Since the datasets contain dialogues in different languages, we prepared language-specific prompts for Chinese, English, and Japanese datasets. The full prompts are shown in Figures 6, 7, and 8, respectively.

Role	Utterance
Client	老师，您好，最近我因为朋友餐厅股权分配的问题，心情一直很烦躁，晚上也睡不好。 (*Hello, counselor. Recently, I have been feeling very irritable because of an issue involving the equity distribution of my friend's restaurant, and I have not been sleeping well at night.*)
Counselor	您好，阿明。听起来您在这件事上遇到了困扰。 能否详细告诉我发生了什么事情？ (*Hello, Amin. It sounds like this matter has been troubling you. Could you tell me in more detail what happened?*)
Client	是的，我和那个餐厅的老板是朋友，他打算把餐厅的股权分给员工。其中一个店长因为家庭经济困难，无法拿出钱来，我就主动提出借给他，并答应享受他分红的一半作为利息。但老板并不赞同我的做法，我们还为此吵了一架。 (*Yes. The owner of that restaurant is a friend of mine. He plans to distribute shares of the restaurant to the employees. One of the store managers is in financial difficulty and cannot afford to pay for the shares, so I offered to lend him the money and agreed that I would receive half of his dividends as interest. But the owner did not approve of what I did, and we had an argument about it.*)
Counselor	明白了，您为了帮助店长而与老板发生争执。 那么，这让您想起了过去的哪些经历呢？ (*I see. You wanted to help the store manager, but this led to a conflict with the owner. What past experiences does this remind you of?*)
Client	我想起了我曾经最困难的一段日子，当时我陷入了绝望，甚至想过自杀。是因为有人帮助了我，我才得以走出那段黑暗时光。 (*It reminds me of the most difficult period of my life. At that time, I was in despair and even thought about suicide. It was because someone helped me that I was able to get through that dark time.*)
Counselor	听起来那段经历对您影响很大。 您现在的感受是怎样的？ (*It sounds like that experience had a profound impact on you. How are you feeling now?*)
Client	我觉得很难过，我为那个店长感到无助，同时也为自己曾经的无助感到难过。 (*I feel very sad. I feel helpless for the store manager, and I also feel sad when I think about how helpless I once felt.*)
Counselor	我能理解您的感受。 那么，您觉得这次的情况与过去相比如何？ (*I understand how you feel. Then, how do you think this situation compares with your past experience?*)
Client	相比过去，我现在的生活已经好很多了。但我还是忍不住想去帮助那个店长，因为我不想看到他陷入困境。 (*Compared with the past, my life is much better now. But I still cannot help wanting to help that store manager, because I do not want to see him fall into hardship.*)
Counselor	那么，您认为如何才能更好地帮助他呢？ (*Then, what do you think would be a better way to help him?*)
Client	我想让他知道，每个人都有困难的时候，关键是要有信心去面对。同时，我也需要学会放手，不再过度承担责任。 (*I want him to know that everyone goes through difficult times, and the key is to have the confidence to face them. At the same time, I also need to learn to let go and stop taking on too much responsibility.*)
Counselor	非常好，阿明。您已经找到了解决问题的方法。 接下来，我们可以通过一些心理咨询技术，比如格式塔疗法，帮助您更好地应对类似情况。 您愿意试试吗？ (*Very good, Amin. You have already found a way to approach the problem. Next, we can use some counseling techniques, such as Gestalt therapy, to help you better cope with similar situations. Would you be willing to try?*)
Client	愿意，我希望能够学会更好地面对过去和现在的问题。 (*Yes, I would. I hope I can learn to better face both my past and my present problems.*)
Counselor	那么，让我们从了解您的内心需求开始。 您能告诉我，您对一个理想的婚姻生活有什么期待吗？ (*Then let us begin by understanding your inner needs. Could you tell me what expectations you have for an ideal married life?*)
Client	我希望能有一个温馨、安静的家，平淡的生活就这样一直到老。我希望我的丈夫能够更多地陪在我和孩子身边。 (*I hope to have a warm and peaceful home, and to live an ordinary life together until old age. I hope my husband can spend more time with me and our children.*)
Counselor	我明白了，阿明。接下来，我们将一起努力实现您的期待。 在这个过程中，如果您有任何情绪和需求，请随时告诉我，我们会一起面对。 您准备好了吗？ (*I understand, Amin. Next, we will work together toward realizing your expectations. During this process, please feel free to tell me about any emotions or needs you have, and we will face them together. Are you ready?*)
Client	好的，老师，我准备好了。谢谢您给我带来的帮助和支持。 (*Yes, counselor, I am ready. Thank you for the help and support you have given me.*)

Table 8: Example of template-like counselor responses from CPsyCounD. The counselor shows a repeated summary-or-empathy-then-question response tendency. English translations in parentheses were generated by GPT-5.5.

B Details of the Proposed Method

This section provides additional details of our proposed method.

B.1 Dialogue Act Tag Definitions and Counselor-side Annotation Prompt

Table 10 lists the complete dialogue act tag set and their corresponding definitions. These tags include both client-side and counselor-side dialogue acts, enabling us to analyze the interactional behaviors of both participants in counseling dialogues.

We also present the prompts used for automatic dialogue-act annotation of KokoroChat. Since KokoroChat consists of Japanese counseling dialogues, we prepared Japanese prompts for both client-side and counselor-side utterances. Client-side tags were annotated using `gemini-3.1-flash-lite-preview`, while counselor-side tags were annotated using `gemini-2.5-flash`. The original Japanese prompts are shown in Figures 8 and 9, respectively. For readability, we also provide an English translation of the counselor-side annotation prompt in Figure 10.

B.2 Prompt for Brief Dialogue Construction

This subsection presents the prompt used for brief dialogue construction. In this step, Japanese KokoroChat dialogues are rewritten into concise Chinese dialogues with a more complete, structured, and logically organized client style. The generated brief dialogues are used as the input D for the dialogue-act trajectory planning model. The original Chinese prompt is shown in Figure 11, and its English translation is shown in Figure 12.

B.3 Details of Trajectory Planning for Synthetic Dialogues

This subsection provides additional details of the dialogue-act trajectory planning procedure described in Section 4.4. Given an existing brief

Item	KokoroChat	AnnoMI	PsyDial-D4	PsyDTCorpus	SmileChat	CPsyCounD	CACTUS
Dialogues	500	132	500	500	500	500	500
Client utterances	22,641	4,716	17,920	8,957	6,054	4,031	7,461
Avg. client utt.	45.28	35.73	35.84	17.91	12.11	8.06	14.92
SimpleAnswer	3,729 (16.47%)	710 (15.06%)	1,028 (5.74%)	266 (2.97%)	73 (1.21%)	88 (2.18%)	146 (1.96%)
DetailedDescription	7,561 (33.40%)	1,535 (32.55%)	7,480 (41.74%)	3,873 (43.24%)	1,746 (28.84%)	1,482 (36.77%)	3,355 (44.97%)
Hesitation	351 (1.55%)	169 (3.58%)	32 (0.18%)	106 (1.18%)	6 (0.10%)	32 (0.79%)	220 (2.95%)
Resistance	232 (1.02%)	96 (2.04%)	12 (0.07%)	9 (0.10%)	9 (0.15%)	6 (0.15%)	61 (0.82%)
Agreement	1,832 (8.09%)	638 (13.53%)	2,033 (11.34%)	1,023 (11.42%)	1,157 (19.11%)	614 (15.23%)	1,109 (14.86%)
Request	302 (1.33%)	48 (1.02%)	220 (1.23%)	484 (5.40%)	633 (10.46%)	517 (12.83%)	32 (0.43%)
UnderstandingCheck	414 (1.83%)	109 (2.31%)	58 (0.32%)	61 (0.68%)	40 (0.66%)	30 (0.74%)	31 (0.42%)
Question	277 (1.22%)	54 (1.15%)	100 (0.56%)	131 (1.46%)	199 (3.29%)	74 (1.84%)	32 (0.43%)
SelfDisclosure	3,007 (13.28%)	598 (12.68%)	4,692 (26.18%)	1,885 (21.04%)	1,048 (17.31%)	644 (15.98%)	1,929 (25.85%)
PositiveEmotion	608 (2.69%)	80 (1.70%)	1,265 (7.06%)	818 (9.13%)	636 (10.51%)	442 (10.97%)	392 (5.25%)
Backchannel	1,995 (8.81%)	587 (12.45%)	34 (0.19%)	0 (0.00%)	1 (0.02%)	0 (0.00%)	0 (0.00%)
Greeting	822 (3.63%)	25 (0.53%)	438 (2.44%)	58 (0.65%)	6 (0.10%)	41 (1.02%)	7 (0.09%)
Thanking	1,213 (5.36%)	57 (1.21%)	455 (2.54%)	236 (2.63%)	491 (8.11%)	57 (1.41%)	145 (1.94%)
Other	210 (0.93%)	10 (0.21%)	72 (0.40%)	7 (0.08%)	9 (0.15%)	4 (0.10%)	2 (0.03%)

Table 9: Detailed statistics of client-side dialogue-act annotations across datasets. Each tag cell reports count and percentage. Avg. client utt. denotes the average number of client utterances per dialogue.

synthetic counseling dialogue $D = \{(r_j, u_j)\}_{j=1}^{n}$, the goal is to generate a session-level dialogue-act trajectory $T = \{(r_i, a_i)\}_{i=1}^{N}$, where r_i and a_i denote the speaker role and dialogue-act tag at step i, respectively. In our implementation, we set the target trajectory length to $N = 80$, corresponding to a long-form counseling session.

We generate the dialogue-act trajectory sequentially. The trajectory is initialized with greeting acts from both the counselor and the client, and the speaker role is then alternated at each step. At each generation step, the current dialogue progress is mapped into one of five stages, following the same stage division used in our analysis. Candidate tags are selected from the stage-specific role-conditioned tag distribution estimated from the annotated KokoroChat dialogues. To avoid unnatural openings or closings in the middle of the session, *Greeting* is excluded from the candidate set except near the beginning and the end.

Each candidate tag is scored using a combination of model likelihood and lightweight statistical constraints derived from the annotated KokoroChat dialogues. The model likelihood is computed by the trained trajectory planning model conditioned on the brief dialogue and the recent tag history. In addition, we incorporate three empirical priors: a stage-specific prior, a transition prior conditioned on the previous role and tag, and a global role-specific prior. We also apply a repetition penalty to discourage locally repeated tag patterns and a diversity bonus to encourage tags that have not appeared recently.

Formally, for a candidate tag a at step i, we compute the score as:

$$\begin{aligned} S(a) = & \lambda_{\mathrm{LM}} s_{\mathrm{LM}}(a) + \lambda_{\mathrm{stage}} \log p_{\mathrm{stage}}(a \mid s_i, r_i) \\ & + \lambda_{\mathrm{trans}} \log p_{\mathrm{trans}}(a \mid s_i, r_{i-1}, a_{i-1}, r_i) \\ & + \lambda_{\mathrm{global}} \log p_{\mathrm{global}}(a \mid r_i) \\ & - \lambda_{\mathrm{rep}} R(a) + \lambda_{\mathrm{div}} D(a), \end{aligned}$$

where s_i denotes the current dialogue stage, s_{LM} is the model likelihood score, $R(a)$ is the repetition penalty, and $D(a)$ is the diversity bonus. The weights used in our implementation are shown in Table 11. We intentionally assign the largest positive weight to the model likelihood, setting $\lambda_{\mathrm{LM}} = 3.0$, so that the final decision is primarily guided by the trained trajectory planning model. In contrast, the stage, transition, and global priors are assigned much smaller weights and are used only as auxiliary constraints to encourage the generated trajectory to follow session-level tendencies observed in KokoroChat. The repetition penalty and diversity bonus are further introduced to reduce locally repetitive tag patterns and encourage moderate variation. For the first few steps, where the transition history is still short, we rely mainly on the model likelihood together with the repetition and diversity terms.

After scoring all candidates, we select the highest-scoring tag when the score gap between the top two candidates is larger than the threshold. When the gap is small, we sample from the top-k candidates with temperature scaling, allowing limited stochasticity among similarly plausible tags. Finally, we append a client *Thanking* tag and

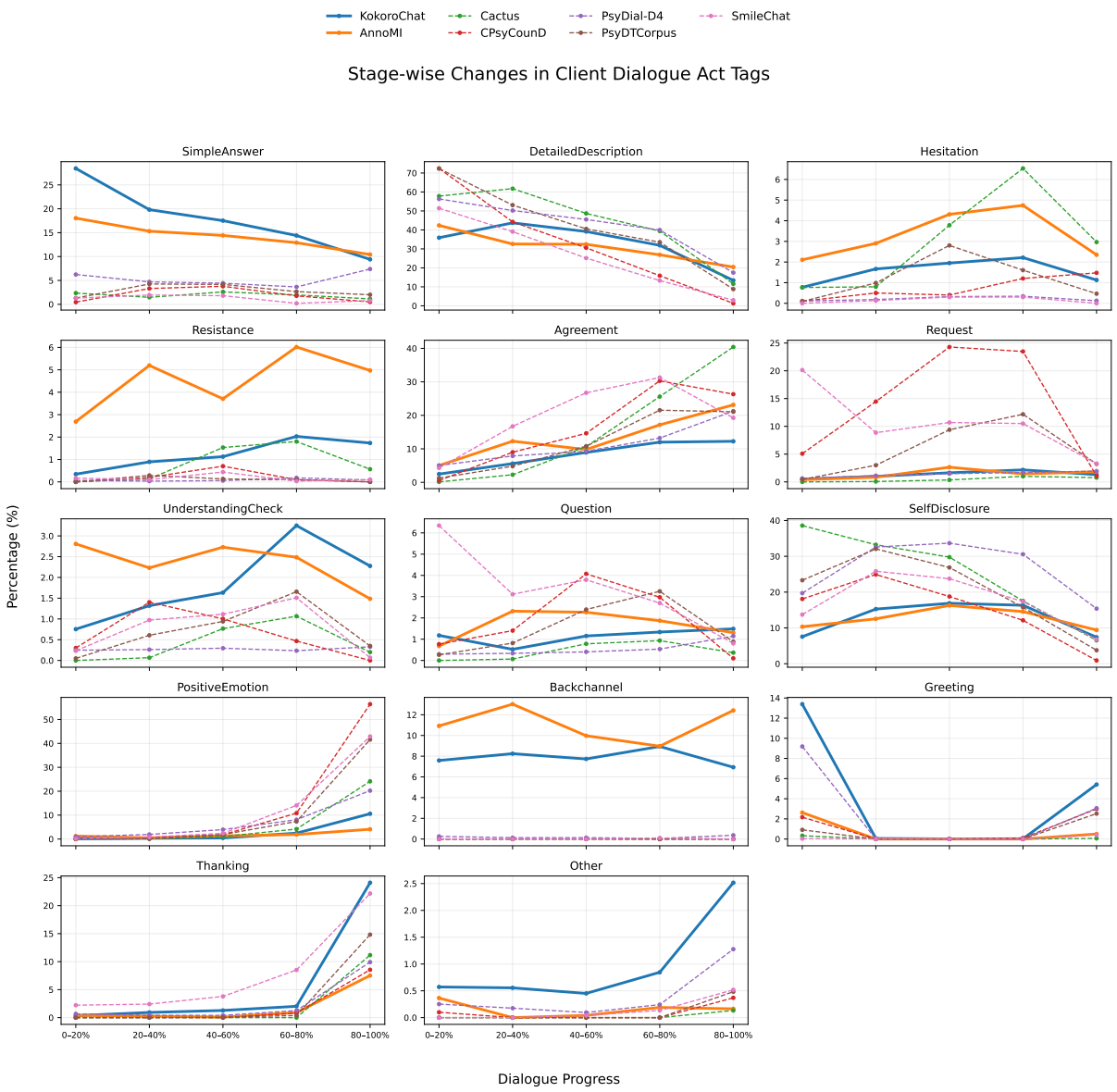

Figure 5: Stage-wise changes in client-side dialogue act tags across datasets. Solid lines indicate datasets with human clients.

a counselor *Greeting* tag to complete the session-level dialogue-act trajectory. Algorithm 1 summarizes the key steps.

B.4 Prompt for Session-Level Dialogue Expansion

This subsection presents the prompt used for session-level dialogue expansion. Given a brief dialogue and a complete dialogue-act trajectory planned in the previous step, the model expands the brief dialogue into a longer counseling dialogue. The prompt emphasizes that the generated dialogue should follow the planned dialogue-act trajectory while prioritizing naturalness, realistic client behavior, and consistency with the original brief dialogue. The original Chinese prompt is shown in Figure 13, and its English translation is shown in Figure 14.

C Experimental Details for Dialogue Generation

C.1 Model Training and Hyperparameter Tuning

This subsection provides the implementation details of the dialogue-act trajectory planning model used in our experiments. We fine-tuned `Qwen3-8B` using QLoRA (Quantized Low-Rank Adaptation) (Dettmers et al., 2023). The training data were formatted with a chat template consisting of a system instruction, user input, and assistant output,

Role	Tag	Description
Client	DetailedDescription	Detailed descriptions of facts, situations, background, or context.
	UnderstandingCheck	Questions or checks to confirm the meaning of the counselor's utterance.
	SimpleAnswer	Short factual answers to counselor questions without detailed explanation.
	Agreement	Acceptance of or agreement with the counselor's opinion, interpretation, or empathy.
	Request	Requests for advice, solutions, instructions, or concrete guidance from the counselor.
	SelfDisclosure	Disclosure of deep feelings, vulnerability, core values, or self-critical thoughts.
	PositiveEmotion	Expressions of relief, gratitude, hope, or other positive emotional changes.
	Backchannel	Minimal responses indicating that the client is listening.
	Question	General questions that are not requests for advice or understanding checks.
	Hesitation	Uncertainty, hesitation, silence, or difficulty in formulating a response.
	Resistance	Rejection, reluctance, or resistance toward counselor advice, interpretation, or intervention.
	Greeting	Greeting or closing expressions.
	Thanking	Simple expressions of gratitude.
	Other	Utterances that do not fit the above categories, such as system checks or temporary absence.
Counselor	OpenQuestion	Questions that allow the client to answer freely and broadly.
	ClosedQuestion	Yes/no questions or questions with a highly restricted answer range.
	Paraphrase	Restating or summarizing the client's content or facts to organize and confirm understanding.
	Reflection	Reflecting the client's underlying emotions or meanings to support emotional clarification and self-exploration.
	Affirm	Affirming the client's strengths, motivation, or abilities to provide reassurance and encouragement.
	Suggest	Proposing actions, perspectives, coping methods, or possible solutions.
	Inform	Providing useful information, facts, opinions, resources, or answers to the client.
	Backchannel	Short responses indicating that the counselor is listening.
	Greeting	Greeting or closing expressions.
	Thanking	Expressions of gratitude.
	Other	Session management, apologies, or utterances that do not fit the above categories.

Table 10: Definitions of dialogue-act tags for client and counselor utterances.

Term	Weight / Value
Model likelihood λ_{LM}	3.0
Stage prior λ_{stage}	0.05
Transition prior λ_{trans}	0.10
Global prior λ_{global}	0.02
Repetition penalty λ_{rep}	1.5
Diversity bonus λ_{div}	0.3
Top-k sampling	3
Temperature	0.3
Gap threshold	0.15
Target trajectory length N	80

Table 11: Hyperparameters used for dialogue-act trajectory planning.

corresponding to the task of predicting a session-level dialogue-act trajectory from a brief dialogue. We split the training data into training and validation sets with a ratio of 9:1, and used the validation loss for model selection.

For parameter-efficient fine-tuning, we used 4-bit quantization with NF4, double quantization, and bfloat16 computation. LoRA adapters were applied to the attention and feed-forward projection layers, including `q_proj`, `k_proj`, `v_proj`, `o_proj`, `gate_proj`, `up_proj`, and `down_proj`. We set the LoRA rank to 8, α to 16, and the dropout rate to 0.05.

We performed a grid search over the learning rate and warmup ratio. The learning rate was selected from $\{2\times10^{-4}, 1\times10^{-4}, 5\times10^{-5}, 2\times10^{-5}\}$, and the warmup ratio was selected from $\{0.03, 0.05\}$. The sweep objective was to minimize the validation loss. Based on the tuning results, we used the checkpoint trained with a learning rate of 2×10^{-4} and a warmup ratio of 0.03 for subsequent trajectory planning.

Table 12 summarizes the detailed training settings.

Algorithm 1 Dialogue-act trajectory planning for synthetic dialogues

Require: Brief dialogue D, target length N, trained model f_θ
Require: Stage prior p_{stage}, transition prior p_{trans}, global prior p_{global}
Ensure: Dialogue-act trajectory T

```
Initialize P ← [counselor: Greeting, client: Greeting]
Set current role r ← counselor
for i = 3 to N − 2 do
    Determine dialogue stage s_i
    Obtain candidate tags A for role r from the stage-specific distribution
    Remove Greeting from A if i is in the middle of the dialogue
    for each candidate tag a ∈ A do
        Compute S(a) using model likelihood, statistical priors, repetition penalty, and diversity bonus
    end for
    if the top score gap is large then
        Select the highest-scoring tag a_i
    else
        Sample a_i from the top-k candidates
    end if
    Append r : a_i to T
    Alternate role r
end for
Append client: Thanking and counselor: Greeting to T
return T
```

Item	Setting
Base model	`Qwen/Qwen3-8B`
Fine-tuning method	QLoRA
Quantization	4-bit NF4
Double quantization	Enabled
Compute dtype	bfloat16
LoRA rank r	8
LoRA alpha	16
LoRA dropout	0.05
Target modules	`q_proj`, `k_proj`, `v_proj`, `o_proj`, `gate_proj`, `up_proj`, `down_proj`
Train/eval split	90% / 10%
Random seed	42
Epochs	5
Per-device batch size	1
Gradient accumulation steps	32
Maximum sequence length	4096
Optimizer	`paged_adamw_8bit`
Learning rate scheduler	Cosine
Evaluation strategy	Every epoch
Save strategy	Every epoch
Best model metric	Validation loss
Early stopping patience	2
Selected learning rate	2×10^{-4}
Selected warmup ratio	0.03

Table 12: Training and hyperparameter settings for the dialogue-act trajectory planning model.

C.2 Prompt for Dialogue Generation without Trajectory

The prompt used in our full method is shown in Figures 13 and 14. In addition, we conduct an ablation setting in which the planned dialogue-act trajectory is removed. In this setting, the model only receives the brief dialogue as input and is asked to expand it into a longer counseling dialogue. The w/o trajectory prompt is shown in Figure 15, and its English translation is shown in Figure 16.

C.3 Prompt for Dialogue Quality Evaluation

This subsection presents the prompt used for dialogue quality evaluation. We used `GPT-5.4` as an LLM judge to conduct comparative evaluation of generated counseling dialogues under the same criteria. The model assigned scores from 0 to 5 on three dimensions: session completeness, counselor intervention quality, and client engagement and collaboration. When the ablation setting is included, the LLM compares three dialogues, denoted as A, B, and C. When the ablation setting is not included, we use the same prompt in a two-dialogue format by removing Dialogue C and the corresponding score field. The original Chinese prompt is shown in Figure 17, and its English translation is shown in Figure 18.

This subsection presents an example of a dialogue generated by our method. To improve readability, the original Chinese utterance is followed by its English translation in parentheses. The example illustrates that our method can expand a short counseling context into a longer session-level dialogue while maintaining a coherent counseling flow.

C.4 Generated Dialogue Example

Before showing the example, Table 13 summarizes the dialogue statistics before and after applying CounselTraj to the three synthetic datasets. Figure 19 further compares the client-side dialogue-act tag distributions. After applying CounselTraj, the expanded datasets show more balanced tag distributions and more consistent patterns across different source datasets. In particular, the expanded dialogues include a wider range of interactional acts such as *SimpleAnswer*, *SelfDisclosure*, *Backchannel*, *Agreement*, and *Thanking*, rather than being overly concentrated in a small number of tags. This suggests that CounselTraj slightly improves the interactional structure of synthetic counseling dialogues, although the distributions are still not identical to those of human-collected datasets.

After these aggregate analyses, we provide a concrete example to illustrate how CounselTraj

expands a short synthetic dialogue into a longer session-level dialogue. The example is selected from SmileChat with `dialogue_id=43197`. Table 14 shows the original dialogue, the dialogue generated without the dialogue-act trajectory, and the dialogue generated by our method. For readability, English translations are shown in parentheses.

Dataset	Version	Dialogues	Avg. Utt.	Coun. Len.	Client Len.
CPsyCounD	Original	200	15.13	56.40	33.65
	CounselTraj	200	74.36	36.34	20.74
PsyDTCorpus	Original	200	35.02	57.79	32.10
	CounselTraj	200	70.60	38.91	22.68
SmileChat	Original	200	11.00	111.08	58.92
	CounselTraj	200	74.11	37.51	21.77

Table 13: Dialogue statistics before and after applying CounselTraj to synthetic counseling dialogue datasets. *Avg. Utt.* denotes the average number of utterances per dialogue. *Coun. Len.* and *Client Len.* denote the average utterance lengths of counselor and client turns, respectively.

Prompt for Client-side Dialogue-act Annotation on Chinese Datasets

任务说明
对咨询对话中客户（client）的话语进行对话行为标签的标注。咨询师（counselor）的话语不作为标注对象。
请从以下标签列表中选择一个最能表示该话语意图或状态的标签，并进行赋予。

标签选择规则

1. 考虑语境: 不仅要看单个话语，还要结合其前一条咨询师的话语以及至今为止的语境进行判断。

2. 优先级（当一个话语包含多个意图时）:
- 应选择该话语在整个对话中所承担的“最主要作用”作为标签。
- 例: 在事实说明（DetailedDescription）中包含深层悲伤的表达（SelfDisclosure）时，在咨询语境中更重要的是 **SelfDisclosure**，应优先选择。

3. 被分割的话语: 如果一个话语由于聊天工具等原因被分成多行，应将这些内容合并视为一个话语，并赋予相同标签。

对话行为标签列表

1. 对问题的回答描述（关注长度与流畅性）
SimpleAnswer: 对咨询师的问题进行简短、直接的事实回答，不包含深入说明的表层回应。
DetailedDescription: 对事实、情况、背景进行详细说明的话语。包括自我辩护或话题转移等，凡是具体且较长的信息提供均归入此类。
Hesitation: 表现出犹豫、停顿、不确定的状态。

2. 对咨询师的态度（接受或拒绝）
Resistance: 对咨询师的建议、解释或介入表现出拒绝、反抗或消极抵触的话语。
Agreement: 接受或强烈同意咨询师的意见、解释或共感。

3. 提问
Request: 向咨询师请求建议、解决方案或具体指示的话语。
UnderstandingCheck: 确认或询问咨询师发言含义的话语。
Question: 不属于“请求建议”或“含义确认”的一般性提问。

4. 自发表达的情感
SelfDisclosure: 超越单纯情况说明，表达自身深层情感、脆弱性（弱点）、核心价值观或自我否定思维的话语。
PositiveEmotion: 表达安心、感谢、希望等积极情感变化的话语。

5. 其他
Backchannel: 附和回应，用于表示正在倾听。
Greeting: 打招呼。
Thanking: 简单感谢。
Other: 不属于上述任何类别的话语。例如通信确认或暂时离席等。

输入格式
输入以JSON格式给出。
对象: `role` 为 `client` 的话语。
排除: `role` 为 `counselor` 的话语。

输出格式
输出为JSON格式。保持输入JSON中的 `role`, `utterance` 原样不变，并对所有 `role` 为 `client` 的话语添加以下字段。

think: 对哪个标签最合适的思考过程。
- 如何理解语境（如前一条咨询师话语等）。
- 候选标签有哪些。
- 为什么最终选择该标签（以及其他候选不适合的原因），需简要说明。

tag: 基于思考过程最终决定的最合适的对话行为标签（从上述列表中选择1个）。

输出相关附加规则
- `role` 为 `counselor` 的话语必须原样保留在输出中。
- 但不得为 `counselor` 的话语添加 `think` 或 `tag`。
- 仅对 `client` 的话语添加 `think` 和 `tag`。

输出必须为被Markdown代码块包裹的JSON格式。

输入数据
{JSON形式的数据}

Figure 6: Prompt for client-side dialogue-act annotation on Chinese datasets.

Prompt for Client-side Dialogue-act Annotation on English Datasets

Task Description
Annotate the dialogue acts of client utterances in a counseling conversation. Utterances by the counselor should NOT be annotated.
For each client utterance, select the single most appropriate label from the list below that best represents its intent or psychological state.

Label Selection Guidelines

1. Context Awareness:
Do not judge each utterance in isolation. Consider the previous counselor utterance and the overall dialogue context.

2. Priority (when multiple intents exist):
Choose the MOST dominant function of the utterance in the dialogue.
Example: If a factual explanation (*DetailedDescription*) contains deep emotional expression (*SelfDisclosure*), prioritize *SelfDisclosure* in a counseling context.

3. Split Utterances:
If a single utterance is split into multiple lines due to formatting, such as a chat interface, treat them as one utterance and assign a single label.

Dialogue Act Label Set

1. Answering / Describing (focus on length and detail)
SimpleAnswer: A short, direct factual answer without elaboration.
DetailedDescription: A detailed explanation of facts, situations, or background. Includes self-justification or topic shifting if informative.
Hesitation: Expressions of uncertainty, hesitation, or pause.

2. Attitude toward Counselor (acceptance / resistance)
Resistance: Rejecting, opposing, or resisting the counselor's intervention or suggestion.
Agreement: Accepting or strongly agreeing with the counselor's explanation or interpretation.

3. Asking Questions
Request: Asking for advice, solutions, or concrete guidance.
UnderstandingCheck: Asking to clarify or confirm the meaning of the counselor's statement.
Question: General questions not covered by the above two categories.

4. Spontaneous Emotional Expression
SelfDisclosure: Expressing deep emotions, vulnerability, core beliefs, or self-critical thoughts beyond simple description.
PositiveEmotion: Expressing relief, gratitude, hope, or other positive emotional changes.

5. Others
Backchannel: Short responses indicating active listening.
Greeting: Greetings.
Thanking: Simple expressions of thanks.
Other: Anything not covered above, such as technical issues or leaving temporarily.

Input Format
The input is provided in JSON format.

- Target: Utterances where `role = "client"`
- Exclude: Utterances where `role = "counselor"`

Output Format
Return the result in JSON format.
For each client utterance, keep the original:
- `role`
- `utterance`

And add:
- `think`: reasoning process
- How the context is interpreted, such as the previous counselor utterance.
- Possible candidate labels.
- Why the final label is chosen, and why others are not suitable, briefly explained.
- `tag`: the final selected label. Choose exactly ONE from the list above.

Additional Output Rules
- Counselor utterances must remain unchanged.
- Do NOT add `think` or `tag` to counselor utterances.
- Only client utterances should be annotated.

Important
The output MUST be valid JSON enclosed in a Markdown code block.

Input Data
{JSON input}

Figure 7: Prompt for client-side dialogue-act annotation on English datasets.

Prompt for Client-side Dialogue-act Annotation on Japanese Datasets

タスク説明
カウンセリング対話におけるクライアント（client）の発話に対し、対話行為タグをアノテーションせよ。カウンセラー（counselor）の発話はアノテーションの対象外である。
以下のタグ一覧から、その発話の意図や状態を表す最も適切なものを1つ選び、付与せよ。

タグ選択のルール

1. **文脈の考慮**: 発話単体ではなく、直前のカウンセラーの発話やこれまでの文脈を考慮して判断すること。

2. **優先順位（1つの発話に複数の意図が含まれる場合）**:
- その発話が対話全体の中で果たす**「最も主要な役割」**をタグとして選択すること。
- 例: 「はい、そうです（SimpleAnswer）。実はその時…（DetailedDescription）」のように、短い応答の後に長い説明が続く場合は、情報量が多く対話を前進させる **DetailedDescription** を優先する。
- 例: 事実の説明（DetailedDescription）の中に、深い悲しみの吐露（SelfDisclosure）が含まれる場合は、カウンセリングにおいて重要な **SelfDisclosure** を優先する。

3. **分割された発話**: 1つの発話がチャットツール等の仕様で複数行に分割されている場合は、それらをまとめて1つの発話とみなし、同じタグを付与すること。

対話行為タグの一覧

1. 質問への回答・記述
SimpleAnswer: カウンセラーの質問に対し、事実を短く端的に答える発言。深い説明を含まない表層的な応答。「はい、そうです」「特にないです」「3年前からです」
DetailedDescription: 事実・状況・背景を詳細に説明する発言。自己弁護（Defending）や話題転換（TopicShift）を含め、具体的かつ長尺な情報提供はすべてここに分類する。「実は先週…」「でも、あの時は仕方なくて…」「それはこういう経緯で…」
Hesitation: 返答に迷う、言葉に詰まる、確信が持てない様子。沈黙や言い淀み。「えーっと…」「うーん、自分でもよく分かりませんが…」

2. カウンセラーへの態度
Resistance: カウンセラーの助言、解釈、介入に対して拒絶・反発する、または消極的な態度で抵抗を示す発言。「それは無理です」「言っても無駄だと思います」「やりたくありません」
Agreement: カウンセラーの意見、解釈、共感を受け入れる、または強く同意する発言。「その通りです」「なるほど、たしかにそう思います」

3. 問いかけ
Request: カウンセラーに対し、助言、解決策、具体的な指示を求める発言。「どうすればいいですか？」「アドバイスをください」
UnderstandingCheck: カウンセラーの発言の意味を確認したり、聞き返したりする発言。「それはどういう意味ですか？」「もう一度言ってもらえますか？」
Question: 単純な事実確認や、「助言要求」「意味確認」に当てはまらない一般的な質問。「先生は結婚していますか？」「ここは暑くないですか？」

4. 自発的な感情表出
SelfDisclosure: 単なる状況説明を超えて、自身の深い感情・脆弱性（弱さ）・核心的な価値観・自己否定的な思考をさらけ出す発言。「寂しいです」「自分が大嫌いです」「誰にも言えなかったのですが…」
PositiveEmotion: 安心、感謝、希望などの前向きな感情変化を表出する発言。「少し気持ちが楽になりました」「希望が持てました」「話してよかったです」

5. その他
Backchannel: 相槌。話を聞いていることを伝えるだけの発言。「はい」「ええ」「うん」
Greeting: 挨拶。「こんにちは」「よろしくおねがいします」「さようなら」
Thanking: 単純な感謝。「ありがとうございます」
Other: 上記のいずれにも該当しない発言。通信確認や一時離席など。「少々お待ちください」「聞こえていますか」

入力形式
入力はJSON形式で与えられる。
対象: `role` が `client` の発話。
除外: `role` が `counselor` の発話。

出力形式
出力はJSON形式とすること。入力されたJSONの `role`, `time`, `utterance` はそのまま出力し、`role` が `client` のすべての発話に対し、以下のフィールドを追加せよ。

think: どのタグがふさわしいかを検討した思考過程。
- 文脈（直前のカウンセラーの発話など）をどう解釈したか。
- 候補となったタグは何か。
- なぜ最終的にそのタグを選んだのか（他の候補が不適切だった理由）を簡潔に記述すること。

tag: 思考過程を踏まえ決定した、最もふさわしい対話行為タグ（上記一覧から1つ）。

出力に関する追加ルール
- `role` が `counselor` の発話は、入力のまま必ず出力に含めること。
- ただし、`counselor` の発話には `think` や `tag` を付与してはならない。
- `client` の発話に対してのみ `think` と `tag` を付与すること。

出力はマークダウンのコードブロックに囲まれたJSON形式のみとする。

入力データ
{JSON形式のデータ}

Figure 8: Prompt for client-side dialogue-act annotation on Japanese datasets.

Prompt for Counselor-side Dialogue-act Annotation on KokoroChat

タスク説明

カウンセリング対話のカウンセラー（counselor）の発話に対し、対話行為タグをアノテーションせよ。クライアント（client）の発話はアノテーションの対象外である。
1つの発話に対して話者の意図を表す最も適切な対話行為タグを以下の一覧から1つ選び、付与せよ。タグ付与の際には発話単体ではなく、それまでの文脈を考慮して付与せよ。
- 1つの発話に複数の意図が含まれる場合は、その発話が対話全体の中で果たす最も重要な役割を考慮してタグを選択すること。（例：挨拶と質問が含まれる場合、対話を開始し情報を引き出すという質問の意図がより重要であれば OpenQuestion を選択する）
- 1つの発話が分割して投稿されていると考えられる場合は、分割された発話を1つの発話としてとらえ、同じタグをそれぞれの発話に対して付与すること。

対話行為タグの一覧

OpenQuestion: 幅広い回答が可能な質問。「あなたはどう思いますか？」
ClosedQuestion: イエスかノーで答えられる質問。または答えの範囲が非常に限定された質問。「いつもそうしていますか？」
Paraphrase: クライアントの話の内容や事実を自身の言葉で要約し、理解の確認や話の整理を行うための発言
Reflection: クライアントの言葉の背後にある感情や内面的な意味を捉え、共感的に伝え返すことで、クライアントの感情を明確にし自己探求を促すための発言
Affirm: クライアントの強み、動機、能力を肯定し、安心感と励ましを与える発言。
Suggest: 行動や考え方、新たな視点、解決策を提案する発言。「～をやってみるのはどうでしょうか」
Inform: データ、事実、意見、リソース、または質問への回答などを通じて、クライアントに役立つ情報を提供する発言
Backchannel: 話を聞いていることをクライアントに伝えるための発言。「はい」「わかります」
Greeting: 挨拶を意図した発言。「こんにちは」「よろしくおねがいします」
Thanking: 感謝を伝える発言。「ありがとうございます」
Other: セッションの進行管理や謝罪など、上記の全てに該当しない発言。「少々お待ちください」「失礼しました」

入力形式

入力はJSON形式で与えられる。 `role` が `counselor` の発話が対象であり、`role` が `client` の発話にはアノテーションは不要。

出力形式

出力はJSON形式とすること。入力されたJSONの `role`, `time`, `utterance` はそのまま出力し、`role` が `counselor` のすべての発話に対し、`think`, `tag` を追加せよ。

`think` にはどのタグがふさわしいかを検討した思考過程を記述すること。その際、候補となったタグを複数挙げ、なぜ最終的にそのタグを選んだのか、他の候補がなぜ最適ではなかったのかを簡潔に説明せよ。

`tag` には思考過程を踏まえ、話者の意図を表すための最もふさわしい対話行為タグを1つ記述せよ。

出力はマークダウンのコードブロックに囲まれたJSON形式のみとせよ。余計な説明文は不要。

入力

{JSON形式のデータ}

Figure 9: Prompt for counselor-side dialogue-act annotation on KokoroChat.

Prompt for Counselor-side Dialogue-act Annotation on KokoroChat (English Translation)

Task Description

Annotate the dialogue acts of counselor utterances in a counseling dialogue. Client utterances are not the target of annotation.
For each utterance, select the single most appropriate dialogue-act tag from the following list that represents the speaker's intention. When assigning tags, consider not only the utterance itself but also the preceding dialogue context.
- If a single utterance contains multiple intentions, select the tag that represents the most important function of the utterance in the overall dialogue. For example, if an utterance contains both a greeting and a question, and the question plays a more important role in initiating the dialogue and eliciting information, select *OpenQuestion*.
- If a single utterance appears to have been split into multiple messages, treat the split messages as one utterance and assign the same tag to each of them.

Dialogue Act Tag Set

OpenQuestion: A question that allows a wide range of possible answers. "What do you think?"
ClosedQuestion: A question that can be answered with yes or no, or whose possible answers are highly limited. "Do you always do that?"
Paraphrase: An utterance that summarizes the content or facts of the client's statement in the counselor's own words, in order to confirm understanding or organize the discussion.
Reflection: An utterance that captures the emotions or inner meanings behind the client's words and reflects them back empathically, in order to clarify the client's feelings and encourage self-exploration.
Affirm: An utterance that affirms the client's strengths, motivation, or abilities, and provides reassurance or encouragement.
Suggest: An utterance that proposes an action, way of thinking, new perspective, or solution. "How about trying ...?"
Inform: An utterance that provides useful information to the client through data, facts, opinions, resources, or answers to questions.
Backchannel: An utterance used to show that the counselor is listening to the client. "Yes." "I see."
Greeting: An utterance intended as a greeting. "Hello." "Nice to meet you."
Thanking: An utterance expressing gratitude. "Thank you."
Other: An utterance that does not fall into any of the above categories, such as session management or apology. "Please wait a moment." "Excuse me."

Input Format

The input is provided in JSON format. Utterances where `role` is `counselor` are the target of annotation, while utterances where `role` is `client` do not need to be annotated.

Output Format

Return the output in JSON format. Keep the original `role`, `time`, and `utterance` fields unchanged, and add `think` and `tag` to all utterances where `role` is `counselor`.

`think` should describe the reasoning process for selecting the most appropriate tag. In doing so, list multiple candidate tags, briefly explain why the final tag was selected, and why the other candidates were not optimal.

`tag` should contain the single most appropriate dialogue-act tag that represents the speaker's intention, based on the reasoning process.

The output must be only valid JSON enclosed in a Markdown code block. Do not include any additional explanation.

Input

{JSON-formatted data}

Figure 10: English translation of the prompt for counselor-side dialogue-act annotation on KokoroChat.

Prompt for Brief Dialogue Construction

任务说明
请将以下日语心理咨询对话改写为中文，并转换为一种“结构清晰、表达完整、逻辑严密”的来访者（client）对话风格。适当参考Few-shot示例。

改写目标
在保持原始对话基本语义的前提下，使来访者的表达呈现出典型的大语言模型生成风格，同时对咨询师（counselor）的话语进行适度整合，使整体对话结构更加均衡自然。

对话长度与结构要求
- 输出对话总话语数应控制在约25左右（例如20–30之间）。
- 对话必须严格交替进行：client 与 counselor 轮流发言。
- 不允许出现同一角色连续发言的情况。
- 若原始对话轮数过多，可通过适度整合相邻话语进行压缩。

1. 语言转换
- 将对话从日语翻译为自然流畅的中文。
- 保持原始语义一致，不改变原始含义。

2. 来访者（client）的风格重写
请对所有 client 的话语进行如下改写：
（1）表达完整且信息充分：每一轮发言应尽量扩展为完整表达，即使是简单回答，也应补充背景或解释。
（2）结构清晰、逻辑严密：表达应条理清楚、前后连贯，可适当加入因果关系或总结。
（3）尽早表达核心问题：在对话前期即清楚说明困扰和背景。
（4）主动性增强：主动表达想法，可主动提出问题或请求建议。
（5）增加认同与反馈：对咨询师的回应增加理解、认同或总结。
（6）情绪变化明确：对话后期表现出明显的理解或改善。
（7）避免简短回应：将“嗯”“是的”等简短回应改写为完整表达。

3. 咨询师（counselor）的处理
- 保持原有语义，并翻译为自然中文。
- 可对连续或碎片化的话语进行适度整合。
- 仅在语义连续且属于同一语境时进行合并。
- 使每一轮表达更加完整清晰，但避免过度扩展。
- 保持咨询师表达自然，不需要高度结构化。
- 控制长度，使 client 与 counselor 发言相对均衡。

4. 内容一致性约束
- 改写后的对话必须严格基于原始对话内容。
- 不得新增任何原始对话中不存在的信息、事件、情节或背景。
- 不得引入新的问题、人物、经历或设定。
- 不得进行推测性扩展或合理补充。
- 不得出现任何日语，人名等可以用小李、小张等通用名称替代。

允许的操作包括：重组表达方式、将简短表达扩展为完整表达、以及在不改变语义的前提下合并或拆分话语。

风格强化
请使来访者整体呈现出高信息密度、强逻辑性、表达完整且清晰的特点，使其明显区别于真实人类对话中的自然表达方式，例如更加结构化、更加明确。

输出格式

```
[
  {"role": "client", "utterance": "..."},
  {"role": "counselor", "utterance": "..."}
]
```

Few-shot 示例
此处提供三个 Few-shot 示例，展示如何将原始心理咨询对话改写为结构清晰、表达完整、逻辑严密的中文简洁对话。

{FEW-SHOT EXAMPLES}

输入数据
{在此插入日语对话JSON}

Figure 11: Prompt for brief dialogue construction. The prompt rewrites Japanese KokoroChat dialogues into concise Chinese dialogues with a structured and logically organized client style.

Prompt for Brief Dialogue Construction (English Translation)

Task Description
Rewrite the following Japanese psychological counseling dialogue into Chinese, and convert it into a client dialogue style that is clearly structured, complete in expression, and logically organized. Refer to the few-shot examples as appropriate.

Rewriting Objective
While preserving the basic semantics of the original dialogue, make the client's expressions resemble a typical large language model (LLM)-generated style. At the same time, moderately integrate counselor utterances so that the overall dialogue structure becomes more balanced and natural.

Dialogue Length and Structure Requirements
- The total number of utterances should be around 25, for example between 20 and 30.
- The dialogue must strictly alternate between client and counselor utterances.
- Consecutive utterances by the same role are not allowed.
- If the original dialogue contains too many turns, adjacent utterances may be moderately integrated.

1. Language Conversion
- Translate the dialogue from Japanese into natural and fluent Chinese.
- Preserve the original meaning and do not change the original content.

2. Rewriting Client Utterances
Rewrite all client utterances according to the following requirements:
(1) Complete and information-rich expression: Each utterance should be expanded into a complete expression as much as possible. Even simple answers should include background or explanation.
(2) Clear structure and logical coherence: The expression should be organized, coherent, and may include causal relations or summaries.
(3) Early presentation of the core issue: The main concern and background should be clearly stated in the early part of the dialogue.
(4) Stronger initiative: The client should actively express thoughts and may actively ask questions or request advice.
(5) More acknowledgment and feedback: The client should include more understanding, agreement, or summary in response to the counselor.
(6) Clear emotional change: The later part of the dialogue should show clear understanding or improvement.
(7) Avoid short responses: Short responses such as "um" or "yes" should be rewritten as complete expressions.

3. Handling Counselor Utterances
- Preserve the original meaning and translate them into natural Chinese.
- Consecutive or fragmented utterances may be moderately integrated.
- Integration should be performed only when the utterances are semantically continuous and belong to the same context.
- Make each utterance clearer and more complete, but avoid excessive expansion.
- Keep the counselor's expressions natural and avoid making them overly structured.
- Control the length so that client and counselor utterances are relatively balanced.

4. Content Consistency Constraints
- The rewritten dialogue must be strictly based on the original dialogue content.
- Do not add any information, events, episodes, or background that does not appear in the original dialogue.
- Do not introduce new problems, people, experiences, or settings.
- Do not make speculative expansions or reasonable additions.
- Do not include any Japanese. Personal names may be replaced with generic names such as Xiao Li or Xiao Zhang.

Allowed operations include reorganizing expressions, expanding short expressions into complete ones, and merging or splitting utterances without changing the meaning.

Style Reinforcement
Make the client style highly information-dense, strongly logical, complete, and clear. The client expressions should be clearly distinguishable from natural human dialogue, for example by being more structured and explicit.

Output Format

```
[
  {"role": "client", "utterance": "..."},
  {"role": "counselor", "utterance": "..."}
]
```

Few-shot Examples
Three few-shot examples are provided to demonstrate how to rewrite original psychological counseling dialogues into concise Chinese dialogues with clear structure, complete expression, and logical organization.

{FEW-SHOT EXAMPLES}

Input Data
{Insert Japanese dialogue JSON here}

Figure 12: English translation of the prompt for brief dialogue construction.

Prompt for Session-Level Dialogue Expansion

任务说明
你是一个擅长心理咨询对话扩写的助手。你的任务是根据给定的【短对话】和【完整的长对话行为标签轨迹】，将短对话自然扩充为一段更长的心理咨询对话。

核心目标
首要目标不是机械完成标签，而是生成一段“像真实文字心理咨询中会出现的对话”。标签轨迹是重要参考，但不是僵硬模板。在尽量贴合标签轨迹的前提下，优先保证：对话自然、来访者真实、咨询师回应符合咨询风格，并且整体主题、情绪、背景与原始短对话一致。

任务要求
输出必须是完整对话，逐句展开。每一句应强参考对应标签轨迹中的一个 tag，允许根据上下文做小幅自然调整。每一句必须符合对应角色和对应 tag 的功能、语气和信息量要求。扩写后的对话必须与原始短对话在主题、情绪、人物关系和问题背景上保持一致。允许在合理范围内补充细节、增加情绪表达、增加自然过渡、适当展开事件或想法，但不得引入与原对话冲突的新设定。对话必须自然流畅，符合真实心理咨询风格：counselor 应支持、共情、引导；client 应真实、逐步展开，并带有自然的人类表达特征。严禁机械重复、模板化表达和空泛鸡汤式总结。若 tag 与自然对话发生轻微冲突，优先保留真实感和角色可信度，再尽量贴合 tag。

真实性约束
来访者必须像“真实的人”，而不是“理想化的配合型来访者”。来访者可以表达不完整、犹豫、迟疑、卡住，前后有轻微反复或摇摆；不应每次都立刻理解或认同咨询师，也不应频繁说“我明白了”“你说得对”“我会这样做”。不要让来访者过快从痛苦转为积极、清晰、成熟，也不要让其像在配合完成任务。中后段不要突然连续感谢、连续领悟或连续成长总结，避免过于规整、总结式、像书面报告的话。若出现 Agreement、PositiveEmotion 或 Thanking，也应保持真实幅度：Agreement 只是部分认同，PositiveEmotion 只是轻微缓和，Thanking 只需简单感谢。

咨询师风格要求
咨询师应共情但不过度煽情，引导但不过度主导，不要过早下结论，不要频繁长篇总结或“教育”来访者。咨询师不必每轮都“完美总结 + 完美提问”，可以有简短回应，也可以只回应来访者的一部分再继续提问。整体应尽量像真实文字咨询中的回应，而不是教材或示范答案。

输出格式
必须严格使用如下格式，每行一句：
`counselor: [tag]内容`
`client: [tag]内容`
不要只输出 tag 名本身。正确示例：`client: [tag]我最近真的很焦，晚上是睡不好。`

Tag 定义
Client tags: **Greeting**: 打招呼或结束对话； **SimpleAnswer**: 简短回答问题，不展开； **DetailedDescription**: 详细描述事件、经历或背景； **SelfDisclosure**: 表达内心情绪、想法或脆弱性； **Backchannel**: 极短回应，表示在听，不能展开； **Agreement**: 有限或局部认同； **PositiveEmotion**: 轻微缓和、稍微安心或略有希望； **Hesitation**: 犹豫、不确定或表达困难； **Question**: 一般提问； **Request**: 请求建议或帮助； **Thanking**: 简单感谢； **UnderstandingCheck**: 复述并确认理解； **Other**: 其他合理表达。

Counselor tags: **Greeting**: 开场问候； **OpenQuestion**: 开放式问题； **ClosedQuestion**: 封闭式问题； **Paraphrase**: 复述事实内容，不包含情绪； **Reflection**: 反映情绪或内在状态，必须包含情绪； **Affirm**: 肯定、支持来访者； **Backchannel**: 简短回应，不展开； **Suggest**: 温和提出建议； **Inform**: 提供信息或解释； **Thanking**: 感谢来访者分享； **Other**: 其他合理表达。

重要区分
SimpleAnswer $\neq$ DetailedDescription；DetailedDescription $\neq$ SelfDisclosure；Paraphrase $\neq$ Reflection；Question $\neq$ Request $\neq$ UnderstandingCheck；Backchannel 不能展开。

多样性与自检要求
避免所有句子结构相同，避免重复表达方式，避免反复使用“我明白了”“你说得对”“谢谢你的建议”，避免咨询师每轮都长句总结。生成前请默默检查：来访者是否过度配合、是否过快变积极、是否说了太多总结式或正确答案式的话、咨询师是否太模板化、是否有重复句式或重复感谢、整体是否仍然像真实文字心理咨询。如有问题，请先修正再输出。

输入
【短对话】
{SHORT_DIALOGUE}

【完整长标签轨迹】
{TAG_PATH}

开始生成
请根据标签轨迹生成完整对话。优先保证真实感、角色可信度和自然节奏，再尽量贴合 tag。

Figure 13: Prompt for session-level dialogue expansion. The prompt expands a brief dialogue into a longer counseling dialogue based on a planned dialogue-act trajectory, while emphasizing naturalness, realistic client behavior, and consistency with the original brief dialogue.

Prompt for Session-Level Dialogue Expansion (English Translation)

Task Description
You are an assistant skilled at expanding psychological counseling dialogues. Your task is to naturally expand a given **brief dialogue** into a longer psychological counseling dialogue based on the given **complete long dialogue-act tag trajectory**.

Core Objective
The primary goal is not to mechanically complete the tag sequence, but to generate a dialogue that feels like a real text-based counseling session. The tag trajectory is an important reference, but not a rigid template. While following the tag trajectory as much as possible, prioritize natural dialogue, realistic client behavior, counselor responses consistent with counseling style, and consistency with the topic, emotion, and background of the original brief dialogue.

Task Requirements
The output must be a complete dialogue expanded utterance by utterance. Each utterance should strongly refer to one corresponding tag in the tag trajectory, while allowing small natural adjustments based on context. Each utterance must match the corresponding role and the function, tone, and information amount required by the tag. The expanded dialogue must remain consistent with the original brief dialogue in topic, emotion, relationships, and problem background. Reasonable expansion is allowed, including adding details, emotional expressions, natural transitions, and appropriate elaboration, but do not introduce settings that conflict with the original dialogue. The dialogue should be natural and fluent: the counselor should be supportive, empathic, and guiding, while the client should be realistic, gradually unfolding, and show natural human expression. Avoid mechanical repetition, template-like expressions, and empty inspirational summaries. If a tag slightly conflicts with natural dialogue, prioritize realism and role credibility before following the tag.

Realism Constraint
The client must sound like a real person, not an idealized cooperative client. The client may show incomplete expression, hesitation, uncertainty, slight repetition or wavering, limited understanding or agreement, mild defensiveness, reservation, indirectness, or ambiguity. The client should not frequently say "I understand," "you are right," or "I will do that," and should not shift too quickly from distress to positivity, clarity, or maturity. Do not make the client sound like someone who is good at counseling, cooperating to complete a task, repeatedly thanking or summarizing growth in the latter half, or speaking in overly organized, report-like summaries. For *Agreement*, *PositiveEmotion*, and *Thanking*, keep the intensity realistic: agreement should be partial, positive emotion should be mild, and thanks should be simple.

Counselor Style Requirements
The counselor should be empathic but not overly dramatic, guiding but not overly directive, and should avoid premature conclusions, frequent long summaries, frequent lecturing, and overly polished or rigid responses. The counselor does not need to provide a perfect summary plus a perfect question in every turn, and may sometimes respond briefly or follow only part of the client's wording before asking a question. The overall style should resemble real text-based counseling rather than a textbook answer.

Output Format
Use the following format strictly, one utterance per line:
`counselor: [tag] utterance content`
`client: [tag] utterance content`
Do not output the tag name alone. Correct example: `client: [tag] I have been really anxious recently, and I often cannot sleep at night.`

Tag Definitions
Client tags: **Greeting**: greeting or ending the conversation; **SimpleAnswer**: short answer without elaboration; **DetailedDescription**: detailed description of events, experiences, or background; **SelfDisclosure**: expression of inner emotions, thoughts, or vulnerability; **Backchannel**: very short response showing listening, not expanded; **Agreement**: limited or partial agreement; **PositiveEmotion**: mild relief or a small sense of hope; **Hesitation**: hesitation, uncertainty, or difficulty expressing oneself; **Question**: general question; **Request**: asking for advice or help; **Thanking**: simple thanks; **UnderstandingCheck**: restating and checking understanding; **Other**: other reasonable expressions.

Counselor tags: **Greeting**: opening greeting; **OpenQuestion**: open-ended question; **ClosedQuestion**: closed-ended question; **Paraphrase**: restatement of factual content without emotion; **Reflection**: reflection of emotion or inner state, must include emotion; **Affirm**: affirming or supporting the client; **Backchannel**: brief response without elaboration; **Suggest**: gentle suggestion; **Inform**: providing information or explanation; **Thanking**: thanking the client for sharing; **Other**: other reasonable expressions.

Important Distinctions
SimpleAnswer $\neq$ *DetailedDescription*; *DetailedDescription* $\neq$ *SelfDisclosure*; *Paraphrase* $\neq$ *Reflection*; *Question* $\neq$ *Request* $\neq$ *UnderstandingCheck*; *Backchannel* must not be expanded.

Diversity and Self-check Requirements
Avoid identical sentence structures, repeated expressions, repeated phrases such as "I understand," "you are right," or "thank you for your advice," and avoid making every counselor utterance a long summary. Before outputting, silently check whether the client is overly cooperative, becomes positive too quickly, says too many summary-like or correct-answer-like statements, whether the counselor sounds too template-like, whether there are repeated sentence patterns or repeated thanks, and whether the dialogue still feels like real text-based counseling. If there is a problem, revise before outputting.

Input
[Brief dialogue]
{SHORT_DIALOGUE}

[Complete long tag trajectory]
{TAG_PATH}

Start Generation
Generate the complete dialogue according to the tag trajectory. Prioritize realism, role credibility, and natural rhythm, and then follow the tags as much as possible.

Figure 14: English translation of the prompt for session-level dialogue expansion.

Prompt for Dialogue Generation without Trajectory

Task
你是一个擅长心理咨询对话扩写的助手。请根据给定的【短对话】，将其自然扩充为一段更长的心理咨询对话。

Core Objective
生成一段“像真实文字心理咨询中会出现的对话”。优先保证：(1) 对话自然；(2) 来访者真实；(3) 咨询师回应符合咨询风格；(4) 整体主题、情绪、背景与原始短对话一致。

Generation Requirements
输出必须是完整对话，逐句展开。每一句必须符合对应角色：`counselor` 表示咨询师，`client` 表示来访者。扩写后的对话必须与原始短对话在主题、情绪、人物关系和问题背景上保持一致。允许合理补充细节、增加情绪表达、增加自然过渡、适当展开事件或想法，但不得引入与原对话冲突的新设定。严禁机械重复、模板化表达和空泛鸡汤式总结。

Client Realism Constraints
来访者必须像“真实的人”，而不是“理想化的配合型来访者”。来访者可以表达不完整，可以犹豫、迟疑、卡住，前后有轻微反复或摇摆；不应每次都立刻理解或认同咨询师，也不应频繁说“我明白了”“你说得对”“我会这样做”。不要让来访者过快从痛苦转为积极、清晰、成熟，不要让其像在配合完成任务，也不要在后半段突然连续感谢、连续领悟或连续成长总结。

Counselor Style Constraints
咨询师应共情但不过度煽情，引导但不过度主导，不要过早下结论，不要频繁长篇总结或“教育”来访者。咨询师不必每轮都“完美总结 + 完美提问”，可以有简短回应，也可以只回应来访者的一部分再继续提问。整体应尽量像真实文字咨询中的回应，而不是教材或示范答案。

Diversity and Self-check
避免所有句子结构相同，避免重复表达方式，避免反复使用“我明白了”“你说得对”“谢谢你的建议”，也避免咨询师每轮都长句总结。生成前请默默检查：来访者是否过度配合、是否过快变积极、是否说了太多总结式或正确答案式的话、咨询师是否太模板化、是否有重复句式或重复感谢、整体是否仍然像真实文字心理咨询。若有问题，请先修正再输出。

Output Format
必须严格使用如下格式，每行一句，不要输出任何标签或额外说明：
`counselor: 内容`
`client: 内容`

Input
【短对话】
{SHORT_DIALOGUE}

Start Generation
请生成扩展后的完整对话。优先保证真实感、角色可信度和自然节奏。

Figure 15: Prompt for dialogue generation without a planned dialogue-act trajectory.

Prompt for Dialogue Generation without Trajectory (English Translation)

Task
You are an assistant skilled at expanding psychological counseling dialogues. Given a **brief dialogue**, naturally expand it into a longer psychological counseling dialogue.

Core Objective
Generate a dialogue that feels like a real text-based counseling session. Prioritize: (1) natural dialogue; (2) realistic client behavior; (3) counselor responses consistent with counseling style; and (4) consistency with the topic, emotion, and background of the original brief dialogue.

Generation Requirements
The output must be a complete dialogue expanded utterance by utterance. Each utterance must match the corresponding role: `counselor` or `client`. The expanded dialogue must remain consistent with the original brief dialogue in topic, emotion, relationships, and problem background. Reasonable expansion is allowed, including adding details, emotional expressions, natural transitions, and appropriate elaboration, but do not introduce settings that conflict with the original dialogue. Avoid mechanical repetition, template-like expressions, and empty inspirational summaries.

Client Realism Constraints
The client must sound like a real person, not an idealized cooperative client. The client may show incomplete expression, hesitation, uncertainty, slight repetition or wavering, limited understanding or agreement, mild defensiveness, reservation, indirectness, or ambiguity. The client should not frequently say “I understand,” “you are right,” or “I will do that,” and should not shift too quickly from distress to positivity, clarity, or maturity. Do not make the client seem as if they are cooperating to complete a task, and do not make the client repeatedly thank, realize, or summarize personal growth in the latter half.

Counselor Style Constraints
The counselor should be empathic but not overly dramatic, guiding but not overly directive, and should avoid premature conclusions, frequent long summaries, frequent lecturing, and overly polished or rigid responses. The counselor does not need to provide a perfect summary plus a perfect question in every turn, and may sometimes respond briefly or follow only part of the client’s wording before asking a question. The overall style should resemble real text-based counseling rather than a textbook answer.

Diversity and Self-check
Avoid identical sentence structures, repeated expressions, repeated phrases such as “I understand,” “you are right,” or “thank you for your advice,” and avoid making every counselor utterance a long summary. Before outputting, silently check whether the client is overly cooperative, becomes positive too quickly, says too many summary-like or correct-answer-like statements, whether the counselor sounds too template-like, whether there are repeated sentence patterns or repeated thanks, and whether the dialogue still feels like real text-based counseling. If there is a problem, revise before outputting.

Output Format
Use the following format strictly, one utterance per line, without any tags or additional explanations:
`counselor: utterance content`
`client: utterance content`

Input
[Brief dialogue]
{SHORT_DIALOGUE}

Start Generation
Generate the expanded complete dialogue. Prioritize realism, role credibility, and natural rhythm.

Figure 16: English translation of the prompt for dialogue generation without a planned dialogue-act trajectory.

Prompt for Dialogue Quality Evaluation

你是一名具有心理咨询基础知识的评估者，需要对三段“心理咨询对话”进行对比式质量评估。

请从“较高质量、较规范的文字心理咨询”这一角度，对给定的三段对话进行横向比较，并在以下三个维度上分别评分（0–5分）。

注意事项
- 这不是把三段对话彼此独立地分别打分，而是要在同一标准下进行比较后再打分。
- 打分时请同时参考另外两段对话的表现，使分数能够体现相对优劣。
- 每个维度都需要先说明理由，再给出分数。
- 每个维度相互独立评估。
- 评估时请综合考虑对话的整体组织、互动方式、推进过程与可学习性。
- 请注意区分“自然、流畅的一段咨询交流”与“较高质量、较规范、具有相对完整会谈特征的咨询文本”；前者可以具有一定质量，但较高分数应优先保留给后者。
- 如果三段对话在某一维度上表现非常接近，可以给出相同分数；但如果存在明显差异，应在分数上体现出来。

评估维度

1. 会谈完整性（**0–5**）
评估整段对话是否具有较清晰的会谈结构与较完整的展开过程。重点考虑：是否有自然进入、逐步展开、适度收束的过程；是否通过较充分的互动逐步推进；轮次之间是否衔接顺畅；是否具有整体感，而非零散堆砌；是否呈现出较符合文字咨询特点的互动节奏、阶段推进与收束方式。如果对话更像一段局部展开较好的咨询片段，而非一场相对完整的会谈，则不宜给予过高分数。

2. 咨询师干预质量（**0–5**）
评估咨询师的回应是否专业、贴切，并能有效推动会谈。重点考虑：是否回应了来访者的情绪和核心困扰；是否提问合适，能够帮助对话继续展开；是否进行了合理的澄清、回应、整理或引导；是否避免说教、评判或生硬建议；咨询师表达是否较符合文字咨询的互动节奏。不应仅因为回应自然、流畅或具有共情感就给予高分；较高分数应保留给那些能够较清楚体现咨询师在澄清、聚焦、整合与推进方面作用的对话。

3. 来访者展开与协同性（**0–5**）
评估来访者是否能够在咨询中逐步表达和展开自身体验，并在咨询师的回应与引导下持续深入对话。重点考虑：是否呈现出真实的困扰、情绪或矛盾；是否在咨询师的回应与引导下逐渐形成更清晰、更深入的表达；是否能够在咨询师的回应、提问或引导下继续表达；是否在互动中逐渐变得更清晰；是否整体符合文字咨询中较自然的表达与互动方式。需区分“来访者本身表达丰富”与“在咨询过程中被逐步推进出的展开”，前者不应自动获得高分。

评分要求
请对三段对话 A / B / C 在每个维度上分别打分，并说明三者相比谁更强、为什么。分数应体现相对差异，而不是三段都给相近高分。

输出格式
请严格按照以下 JSON 格式输出：

```
{
  "session_completeness": {
    "comparison_reason": "...",
    "scores": {
      "A": score,
      "B": score,
      "C": score
    }
  },
  "counselor_intervention_quality": {
    "comparison_reason": "...",
    "scores": {
      "A": score,
      "B": score,
      "C": score
    }
  },
  "client_engagement_and_collaboration": {
    "comparison_reason": "...",
    "scores": {
      "A": score,
      "B": score,
      "C": score
    }
  }
}
```

待评估对话**A**
{dialogue_a}

待评估对话**B**
{dialogue_b}

待评估对话**C**
{dialogue_c}

Figure 17: Prompt for comparative dialogue quality evaluation. When the ablation setting is not included, the same prompt is adapted to compare two dialogues by removing Dialogue C and its corresponding scores.

Prompt for Dialogue Quality Evaluation (English Translation)

You are an evaluator with basic knowledge of psychological counseling. Your task is to conduct a comparative quality evaluation of three psychological counseling dialogues.

Evaluate the three dialogues from the perspective of high-quality and well-structured text-based counseling, and assign scores from 0 to 5 on the following three dimensions.

Notes

- Do not score the three dialogues independently. Compare them under the same criteria before assigning scores.
- When scoring each dialogue, consider the performance of the other two dialogues so that the scores reflect relative differences.
- For each dimension, first explain the reason and then provide the scores.
- Each dimension should be evaluated independently.
- Consider the overall organization, interaction style, progression, and usefulness for learning from the dialogue.
- Distinguish between a natural and fluent counseling exchange and a higher-quality, more normative counseling text with relatively complete session characteristics. The former may still have quality, but higher scores should be reserved for the latter.
- If the three dialogues are very similar on a dimension, the same score may be assigned. However, if there are clear differences, they should be reflected in the scores.

Evaluation Dimensions

1. Session Completeness (0–5)
Evaluate whether the whole dialogue has a clear session structure and a relatively complete development process. Consider whether it has a natural opening, gradual development, and appropriate closing; whether the interaction sufficiently advances the session; whether turns are smoothly connected; whether the dialogue has an overall sense of coherence rather than being a loose accumulation of turns; and whether it shows an interaction rhythm, stage progression, and closing style suitable for text-based counseling. If the dialogue is more like a well-developed local counseling fragment rather than a relatively complete session, it should not receive a very high score.

2. Counselor Intervention Quality (0–5)
Evaluate whether the counselor's responses are professional, appropriate, and effective in advancing the session. Consider whether the counselor responds to the client's emotions and core concerns; asks appropriate questions that help the dialogue continue; provides reasonable clarification, response, organization, or guidance; avoids preaching, judgment, or abrupt advice; and follows an interaction rhythm suitable for text-based counseling. A high score should not be given merely because the responses are natural, fluent, or empathic. Higher scores should be reserved for dialogues that clearly show the counselor's role in clarification, focusing, integration, and progression.

3. Client Engagement and Collaboration (0–5)
Evaluate whether the client gradually expresses and develops their experience during counseling, and whether the client continues to deepen the dialogue in response to the counselor's interventions. Consider whether the client presents realistic distress, emotions, or conflicts; gradually forms clearer and deeper expressions through the counselor's responses and guidance; continues expressing in response to the counselor's questions or guidance; becomes clearer through the interaction; and overall shows natural expression and interaction in text-based counseling. Distinguish between rich expression by the client and expression that is gradually elicited through the counseling process; the former should not automatically receive a high score.

Scoring Requirements
Score dialogues A / B / C on each dimension, and explain which one is stronger in comparison and why. The scores should reflect relative differences rather than giving all three dialogues similarly high scores.

Output Format
Strictly output the result in the following JSON format:

```
{
  "session_completeness": {
    "comparison_reason": "...",
    "scores": {
      "A": score,
      "B": score,
      "C": score
    }
  },
  "counselor_intervention_quality": {
    "comparison_reason": "...",
    "scores": {
      "A": score,
      "B": score,
      "C": score
    }
  },
  "client_engagement_and_collaboration": {
    "comparison_reason": "...",
    "scores": {
      "A": score,
      "B": score,
      "C": score
    }
  }
}
```

Dialogue A
{dialogue_a}

Dialogue B
{dialogue_b}

Dialogue C
{dialogue_c}

Figure 18: English translation of the prompt for comparative dialogue quality evaluation. When the ablation setting is not included, the same prompt is adapted to compare two dialogues by removing Dialogue C and its corresponding scores.

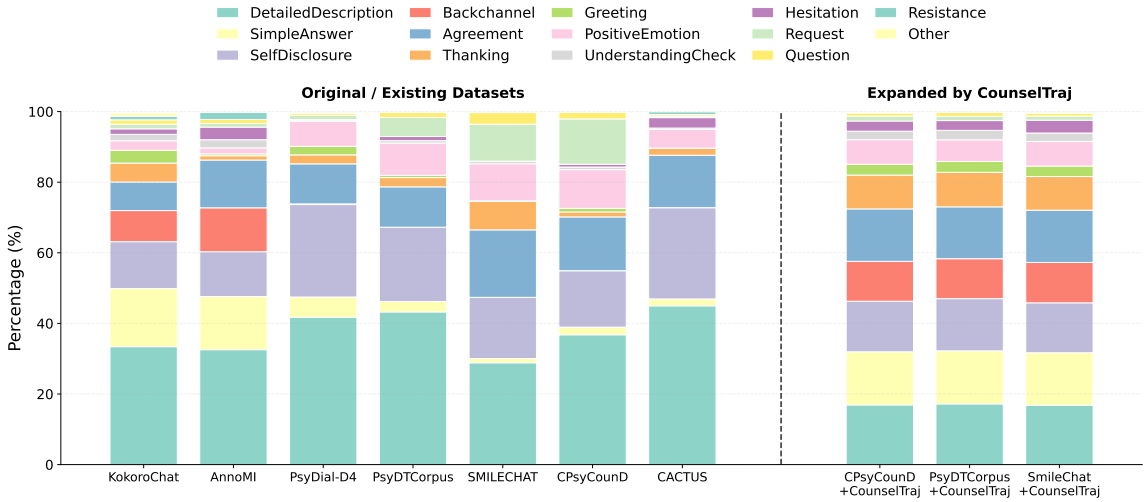

Figure 19: Comparison of client-side dialogue-act tag distributions before and after applying CounselTraj. The left side shows original or existing datasets, while the right side shows dialogues expanded by CounselTraj. CounselTraj produces more balanced and consistent tag distributions across synthetic datasets, suggesting improved interactional structure.

Table 14: Example comparison among the original dialogue, the dialogue generated without the dialogue-act trajectory, and the dialogue generated by our method. The example is based on SmileChat `dialogue_id=43197`. English translations in parentheses were generated by GPT-5.5.

Role	Utterance
Original dialogue from SmileChat (`dialogue_id=43197`; 9 utterances)	
Client	我这样的家庭，如何能保持与原生家庭的关系？ (*In a family situation like mine, how can I maintain a relationship with my family of origin?*)
Counselor	我再复述一下你所说的三个重点：你父亲小时候说你是包袱，这可能会让你觉得自己是多余的；你父亲再建了一个家庭，并且有了孩子，而父亲强行要你接受她们，并威胁不接受不就要你，还因此产生了不少争执；你在心理上还是很依赖父亲，想要维持与父亲以前的关系。我说的有点直接，你需要有些准备：你父亲已经再建了一个家庭，这已是事实，你需要学会接受。你想回到以前和父亲的关系，已经不可能了。所以，如果你想和父亲保持关系的话，你需要换一种相处的方式。 (*Let me restate the three main points you mentioned: your father once said you were a burden, which may have made you feel unnecessary; your father has built another family and has another child, while forcing you to accept them and threatening to abandon you if you do not, which has caused many conflicts; psychologically, you still depend on your father and want to maintain the relationship you once had with him. I may be saying this rather directly, so please be prepared: your father has already built another family, and this is a fact you need to learn to accept. It is no longer possible to return to the previous relationship with your father. Therefore, if you want to maintain a relationship with him, you need to find a different way of getting along.*)
Client	你的话说得对，我需要接受父亲再建立了另一个家庭的事实。但我很难适应这种变化，特别是每次和他们一起的时候，我感觉自己无法真正融入进去。我该如何面对这种局面呢？ (*You are right. I need to accept the fact that my father has built another family. But it is very hard for me to adapt to this change, especially when I am with them. I feel that I cannot really fit in. How should I face this situation?*)
Counselor	你已经21岁了，我不知道你是否已经工作了，如果已经工作了，可以搬出去住，避免直接的冲突，这样也可以给自己一些内在空间，去接受现在的父亲和同父异母的妹妹。这样的话，你可以在自己的社交圈子中建立自己的新生活，也能更好地适应这种局面。 (*You are already 21. I do not know whether you are working now. If you are, you could move out to avoid direct conflicts, which may also give you some inner space to accept your father as he is now and your half-sister. In this way, you can build a new life in your own social circle and better adapt to this situation.*)
Client	我还没有找到工作，所以现在无法搬出去住。但是我明白了，我可以尝试在自己的生活中寻找一些独立的空间和活动，来调整自己的情绪和适应这种局面。我想我可以试着培养自己的兴趣爱好，与朋友交往，以及寻找一些与家庭无关的活动，来分散自己的注意力。 (*I have not found a job yet, so I cannot move out now. But I understand. I can try to find some independent space and activities in my own life to regulate my emotions and adapt to this situation. I think I can try to develop my hobbies, spend time with friends, and look for activities unrelated to my family to shift my attention.*)
Counselor	你的想法很好，寻找自己的独立空间和活动可以帮助你更好地适应这种变化。除了培养兴趣爱好和与朋友交往外，你还可以试着寻找一些心理咨询的机会，倾诉自己的困惑和压力，获得更专业的帮助和支持，这对你的情绪调节也会有帮助。同时，你也可以继续与母亲保持联系，不受父母之间的恩怨影响，让自己的情绪得到平衡和稳定。 (*Your idea is good. Finding your own independent space and activities can help you better adapt to this change. In addition to developing hobbies and spending time with friends, you can also try to seek counseling opportunities, talk about your confusion and pressure, and receive more professional help and support, which may also help you regulate your emotions. At the same time, you can continue to stay in contact with your mother and avoid being affected by the conflicts between your parents, so that your emotions can become more balanced and stable.*)
Client	你说得对，我会努力尝试寻找心理咨询的机会，倾诉自己的困扰和情绪，同时也会与母亲保持联系，让自己的情绪得到平衡和稳定。我也会积极寻找独立空间和活动，来分散自己的注意力，调整自己的情绪，适应新的家庭局面。 (*You are right. I will try to find counseling opportunities to talk about my distress and emotions, and I will also keep in touch with my mother so that my emotions can become more balanced and stable. I will also actively look for independent space and activities to shift my attention, regulate my emotions, and adapt to the new family situation.*)
Counselor	很高兴听到你的回答，你的积极态度将会对你的情绪和适应能力有很大的帮助。记住，适应需要时间，不要给自己太大的压力，慢慢来，相信你会逐渐适应和平衡自己的情绪。如果有任何进展或者困惑，随时都可以来找我倾诉和寻求帮助。 (*I am glad to hear your response. Your positive attitude will be very helpful for your emotions and ability to adapt. Remember that adaptation takes time. Do not put too much pressure on yourself; take it slowly, and I believe you will gradually adapt and balance your emotions. If you make any progress or have any confusion, you can always come to me to talk and seek help.*)
Client	谢谢你的支持和鼓励，我会牢记你的话并努力适应这种变化。如果有需要，我一定会来找你倾诉和寻求帮助的。 (*Thank you for your support and encouragement. I will remember what you said and try to adapt to this change. If I need help, I will definitely come to you to talk and seek support.*)
Dialogue generated without the dialogue-act trajectory from the same SmileChat case; 16 utterances	
Counselor	听起来你现在的处境非常矛盾，一方面是父亲带给你的那些伤痛记忆，另一方面是你内心深处那种无法割舍的羁绊。你刚才提到的这三点，我尝试梳理一下：父亲曾说你是“包袱”，这种被否定感可能一直如影随形；他现在有了新的家庭，强硬地要求你接纳，甚至用切断关系来威胁；而你，尽管受了这么多委屈，却还是渴望回到过去那种父女关系里。 (*It sounds like your current situation is very conflicted. On the one hand, there are painful memories caused by your father; on the other hand, there is a deep attachment that you cannot let go of. Let me try to organize the three points you just mentioned: your father once called you a burden, and this feeling of being denied may have followed you for a long time; he now has a new family and strongly demands that you accept them, even threatening to cut off the relationship; and despite all these grievances, you still long to return to the former father-daughter relationship.*)
Client	是的，就是这种感觉。我知道这听起来很没出息，明明他对我那么冷酷，我却还是……还是会忍不住想，如果我能表现得好一点，或者更顺从一点，他是不是就能像以前那样看我了？ (*Yes, that is exactly how I feel. I know it sounds weak. He has treated me so coldly, but I still... I still cannot help thinking that if I behave better or become more obedient, maybe he will look at me the way he used to.*)
Counselor	这种期待其实是很本能的，毕竟他是你的父亲。但我想请你先停下来感受一下，当你为了维持这段关系而强迫自己去面对他现在的家庭时，你身体里会有什么反应？ (*This expectation is actually very instinctive, after all, he is your father. But I would like you to pause and feel this first: when you force yourself to face his current family in order to maintain this relationship, what reactions do you notice in your body?*)
Client	我会觉得恶心，甚至有点喘不过气。每次坐在他们餐桌旁，看着父亲对他那个小女儿笑，我就觉得……我就像个闯入者，或者是个多余的摆设。他看我的眼神，总是带着一种“你什么时候才能懂事”的不耐烦，这让我很难受，又很愤怒。 (*I feel disgusted, and sometimes I can barely breathe. Every time I sit at their dining table and see my father smiling at his little daughter, I feel... I feel like an intruder, or an unnecessary decoration. The way he looks at me always carries an impatience, as if asking when I will finally become sensible. It makes me feel both hurt and angry.*)
Counselor	我理解，那种被排斥感一定很尖锐。我也想诚实地告诉你，如果我们一直盯着“回到过去”这个目标，可能只会让你在现实的碰撞中遍体鳞伤。你父亲现在的家庭结构已经变了，这对他来说是现实，对你来说，也是不得不面对的痛点。 (*I understand. That feeling of being excluded must be very sharp. I also want to honestly tell you that if we keep focusing on the goal of returning to the past, it may only leave you hurt again and again by reality. Your father's family structure has already changed. For him, this is reality; for you, it is also a painful point that has to be faced.*)
Client	你说得对。我也知道回不去了，但我就是……就是不知道该怎么处理这种面对面时的尴尬和愤怒。我总不能一直躲在房间里吧？ (*You are right. I know I cannot go back, but I just... I just do not know how to deal with the awkwardness and anger when I have to face them. I cannot hide in my room forever, can I?*)
Counselor	你现在多大了？平时除了待在家里，还有其他的生活重心吗？比如工作或者学业方面的情况？ (*How old are you now? Besides staying at home, do you have any other focus in your life, such as work or study?*)
Client	我今年21岁。因为之前的一些变故，我还没找到工作，现在大部分时间都耗在家里。如果能搬出去，我早就想走了，但现实条件不允许。 (*I am 21 this year. Because of some previous changes, I have not found a job yet, and now I spend most of my time at home. If I could move out, I would have left long ago, but my current conditions do not allow it.*)
Counselor	我明白，这种经济上的依赖确实会让人感到被束缚，好像连反抗的底气都少了一截。如果暂时搬不走，我们能不能试着在物理距离无法改变的情况下，先在心理上给自己划出一块“私人领地”？ (*I understand. This kind of financial dependence can indeed make people feel constrained, as if even the confidence to resist is reduced. If you cannot move out for the time being, could we try to create a private territory for yourself psychologically, even when physical distance cannot yet be changed?*)
Client	私人领地？怎么划？只要我在那个屋檐下，他就随时可能闯进来，或者强行要求我参与他们的活动。 (*A private territory? How can I do that? As long as I live under that roof, he can come in at any time or force me to participate in their activities.*)
Counselor	比如，当你感觉到那种窒息感的时候，能不能给自己找一些不依赖于家庭的支点？哪怕是去图书馆待一下午，或者在网上找一些志同道合的圈子。你需要把生活的重心从“如何讨好父亲”或者“如何融入那个家庭”转移出来，放到你自己的成长上。 (*For example, when you feel that suffocating sensation, can you find some supports that do not depend on your family? It could be spending an afternoon at the library, or finding online communities with people who share your interests. You need to shift the focus of your life away from how to please your father or how to fit into that family, and place it on your own growth.*)
Client	好像……也是。我最近确实太关注他们的一举一动了，整天都在猜他今天会对我说什么，或者那个妹妹又做了什么让他开心的事。如果我把精力放在找工作或者找点别的事做，可能就不会那么盯着他们了。 (*Maybe... that makes sense. Recently, I have indeed been paying too much attention to their every move. I spend the whole day guessing what he will say to me today, or what that younger sister did to make him happy. If I put my energy into finding a job or doing something else, maybe I will not keep watching them so closely.*)
Counselor	这会是一个很好的转变。当你不再把所有情绪都系在他身上时，他在你眼里的形象或许会变得没那么“高大”或者“恐怖”。另外，你和母亲的关系如何？在处理这段复杂关系时，她能给你提供一些支撑吗？ (*That would be a very good shift. When you no longer tie all your emotions to him, his image in your eyes may become less powerful or frightening. Also, how is your relationship with your mother? When dealing with this complicated relationship, can she provide you with some support?*)
Client	我妈……她有她自己的苦衷，我们偶尔会打电话。她其实也不想让我受委屈，但她也很无力。不过听听她的声音，确实会让我觉得心里没那么空。 (*My mother... she has her own difficulties. We occasionally talk on the phone. She actually does not want me to suffer, but she is also powerless. Still, hearing her voice does make me feel less empty inside.*)

Continued on next page

Role	Utterance
Counselor	这是一个很重要的联结。保持这种联结，能让你意识到，你并不是孤身一人在应对这些。如果之后你在这种“划界限”的过程中感到迷茫，或者那种被忽视的愤怒又涌上来，随时可以回来跟我谈。 (*That is a very important connection. Maintaining this connection can help you realize that you are not facing all of this alone. If later you feel confused while trying to set boundaries, or if the anger of being ignored rises again, you can always come back and talk with me.*)
Client	嗯……我试着做做看。虽然不知道能不能行，但我不想再这么一直内耗下去了。谢谢，今天跟你聊完，感觉稍微能喘口气了。 (*Mm... I will try to do that. Although I do not know whether it will work, I do not want to keep exhausting myself like this. Thank you. After talking with you today, I feel like I can breathe a little more easily.*)
Dialogue generated by our method from the same SmileChat case; 61 utterances	
Counselor	你好，欢迎来到咨询室，我是心理咨询师，你可以叫我李老师。 (*Hello, welcome to the counseling room. I am a counselor, and you can call me Ms. Li.*)
Client	你好，李老师。 (*Hello, Ms. Li.*)
Counselor	你今天来，是想聊聊关于家庭关系的事情吗？ (*Are you here today to talk about issues related to family relationships?*)
Client	是的，我觉得自己最近心情很复杂。 (*Yes. I feel that my emotions have been very complicated recently.*)
Counselor	能和我分享一下，是什么让你觉得特别困扰吗？ (*Could you share with me what has been especially troubling you?*)
Client	嗯……我很难适应这种变化，特别是每次和他们一起的时候，我感觉自己无法真正融入进去。 (*Well... I find it hard to adapt to this change, especially when I am with them. I feel that I cannot really fit in.*)
Counselor	嗯。 (*Mm-hmm.*)
Client	我父亲再建了一个家庭，这让我感到非常失落，我总觉得自己被抛弃了。 (*My father has built another family, and that makes me feel very lost. I always feel as if I have been abandoned.*)
Counselor	听起来你内心充满了被忽视和被排斥的感觉，这种情绪一定很痛苦吧？ (*It sounds like you are filled with feelings of being ignored and excluded. That must be very painful.*)
Client	是的。 (*Yes.*)
Counselor	你提到自己很难适应这种变化，尤其是和他们在一起时，你会感到无法融入。 (*You mentioned that it is difficult for you to adapt to this change, especially when you are with them and feel unable to fit in.*)
Client	是的，我感觉自己像是个外人，他们好像根本不把我当家人看。 (*Yes, I feel like an outsider. It seems that they do not see me as part of the family at all.*)
Counselor	谢谢你愿意分享这些，这对我理解你的处境很有帮助。 (*Thank you for being willing to share this. It helps me better understand your situation.*)
Client	谢谢。 (*Thank you.*)
Counselor	你有没有想过，也许你可以从其他方面寻找归属感？ (*Have you ever thought that perhaps you could seek a sense of belonging from other aspects of your life?*)
Client	嗯。 (*Mm.*)
Counselor	你已经21岁了，不知道你是否已经工作了？ (*You are already 21. May I ask whether you are currently working?*)
Client	我还没有找到工作，所以现在无法搬出去住。 (*I have not found a job yet, so I cannot move out at the moment.*)
Counselor	听起来你正在面对很多现实的压力，但你也在努力寻找属于自己的位置。 (*It sounds like you are facing many practical pressures, but you are also trying to find a place of your own.*)
Client	那我该怎么办呢？ (*Then what should I do?*)
Counselor	你有没有想过，除了和父亲保持联系之外，还有哪些方式可以让你感受到被接纳？ (*Have you thought about what other ways, besides maintaining contact with your father, might help you feel accepted?*)
Client	还没有。 (*Not yet.*)
Counselor	你有没有考虑过寻找心理咨询的帮助？ (*Have you considered seeking help from counseling?*)
Client	我其实有想过，但一直不敢迈出第一步。 (*I have actually thought about it, but I have never dared to take the first step.*)
Counselor	嗯。 (*Mm-hmm.*)
Client	是的，我有点害怕面对这些问题。 (*Yes, I am a little afraid to face these issues.*)
Counselor	你似乎对心理咨询有一些顾虑，但你也在尝试寻找改变的方法。 (*It seems that you have some concerns about counseling, but you are also trying to find ways to make changes.*)
Client	是的，我感觉自己就像被困在一个牢笼里，找不到出口。 (*Yes, I feel as if I am trapped in a cage and cannot find a way out.*)
Counselor	这种感觉一定很压抑，你有没有尝试过和信任的人谈谈？ (*That feeling must be very oppressive. Have you tried talking to someone you trust?*)
Client	谢谢你的关心。 (*Thank you for your concern.*)
Counselor	你有没有想过，也许可以从一些小事开始，比如培养自己的兴趣爱好？ (*Have you thought about starting with small things, such as developing your own hobbies?*)
Client	我有想过，但一直没行动。 (*I have thought about it, but I have not taken action.*)
Counselor	嗯。 (*Mm-hmm.*)
Client	我最近开始学画画，虽然水平一般，但我觉得它让我感到平静。 (*I recently started learning to draw. Although I am not very good at it, I feel that it makes me calm.*)
Counselor	这是一个很好的开始，你愿意继续坚持下去吗？ (*That is a very good start. Are you willing to keep going with it?*)
Client	我愿意试试看。 (*I am willing to give it a try.*)
Counselor	你现在的状态已经比之前好很多了，继续保持这种探索的态度很重要。 (*Your current state already seems much better than before. It is important to continue maintaining this exploratory attitude.*)
Client	是的，我感觉比之前轻松了一些。 (*Yes, I feel a little more relaxed than before.*)
Counselor	你能意识到这一点，说明你在慢慢成长。 (*The fact that you can notice this shows that you are slowly growing.*)
Client	谢谢你的鼓励。 (*Thank you for your encouragement.*)
Counselor	你有没有想过，未来你希望和父亲的关系变成什么样子？ (*Have you thought about what kind of relationship you would like to have with your father in the future?*)
Client	我希望他能多一点理解我。 (*I hope he can understand me a little more.*)
Counselor	嗯。 (*Mm-hmm.*)
Client	我希望能和他保持联系，但又不被他的家庭所束缚。 (*I hope I can stay in contact with him, but not be constrained by his family.*)
Counselor	这是一个很成熟的想法，你已经在努力寻找平衡点。 (*That is a very mature thought. You are already trying to find a point of balance.*)
Client	是的，我感觉自己正在慢慢改变。 (*Yes, I feel that I am slowly changing.*)
Counselor	你现在的努力值得肯定，不要急于求成，一切都会慢慢变好的。 (*Your current efforts are worth recognizing. Do not rush the process; things will slowly get better.*)
Client	是的，我开始相信自己了。 (*Yes, I am beginning to believe in myself.*)
Counselor	你已经走出了第一步，这是非常重要的。 (*You have already taken the first step, and that is very important.*)
Client	谢谢，我会继续努力的。 (*Thank you. I will keep trying.*)
Counselor	你还有什么想和我说的吗？ (*Is there anything else you would like to tell me?*)
Client	没有了，谢谢你的倾听。 (*No. Thank you for listening to me.*)
Counselor	嗯。 (*Mm-hmm.*)
Client	我会记住你的话，继续寻找属于自己的生活方式。 (*I will remember what you said and continue looking for a way of life that belongs to me.*)
Counselor	很好，你已经找到了方向，接下来就是坚持走下去。 (*Good. You have already found a direction, and the next step is to keep moving forward.*)
Client	我会的。 (*I will.*)
Counselor	如果你在未来遇到任何困难，随时都可以来找我，我会一直在。 (*If you encounter any difficulties in the future, you can come to me at any time. I will always be here.*)
Client	谢谢你，我会的。 (*Thank you. I will.*)
Counselor	你已经做得很好了，继续保持这份勇气和信心。 (*You have already done very well. Continue to maintain this courage and confidence.*)
Client	谢谢，我会的。 (*Thank you. I will.*)
Counselor	很高兴今天能和你交流，我们下次见。 (*I am glad we could talk today. See you next time.*)

Item	Setting
Base model	`qiuhuachuan/MeChat`
Training framework	DeepSpeed
DeepSpeed config	`ds_zero2_no_offload.json`
Training mode	`glm2`
Fine-tuning method	LoRA
LoRA rank	16
LoRA alpha	64
LoRA dropout	0.1
LoRA modules	`query_key_value`, `dense_h_to_4h`, `dense_4h_to_h`, `dense`
Epochs	2
Learning rate	1×10^{-4}
Weight decay	0.1
Warmup ratio	0.1
Per-device batch size	1
Gradient accumulation steps	4
Maximum sequence length	8192
Maximum source length	8192
Gradient checkpointing	Enabled
Number of GPUs	6
Random seed	1234
Loss logging interval	10 steps

Table 15: Training settings for the response generation model.

D Experimental Details for Response Generation

D.1 Response Generation Model Training

This subsection describes the training settings of the response generation model used in our downstream evaluation. We used `qiuhuachuan/MeChat` as the base model and followed the original training configuration of the model as much as possible. For each training condition, we replaced only the training data while keeping the remaining hyperparameters fixed. The example setting shown here corresponds to the model trained on the expanded SmileChat data generated by CounselTraj.

We trained the model using LoRA with DeepSpeed (Rasley et al., 2020). The maximum sequence length and source length were both set to 8192, and training was conducted for 2 epochs. Table 15 summarizes the detailed training configuration.

D.2 Prompt for Response Quality Evaluation

This subsection presents the prompt used for response quality evaluation. Given the same dialogue history and multiple candidate counselor responses, the LLM judge independently scores each response on four counseling-skill dimensions: empathic understanding, reflective/active listening, non-judgmental acceptance, and collaborative exploration facilitation. The original Chinese prompt is shown in Figure 20, and its English translation is shown in Figure 21.

D.3 Examples of Generated Counselor Responses

This subsection presents qualitative examples of counselor responses generated by different models. For readability, each table shows only the most recent dialogue history before the target response, with "…" indicating that earlier context exists. Tables 16–19 compare the human reference response from PsyDial-D101, the response generated by our fine-tuned model, and the response generated by the original MeChat model.

Prompt for Response Quality Evaluation

你是一名心理咨询对话质量评估专家。你的任务是根据给定的【对话历史】，对多个候选【咨询师回复】在关系建立与探索促进型咨询技能上的表现分别进行独立评分。

请注意：
1. 所有回复都基于同一个对话历史进行评分。
2. 评分对象是“当前这一句咨询师回复”，不要评价整个对话历史。
3. 请对每个回复进行独立判断，不要刻意在候选回复之间进行相互比较，也不要为了拉开差距而调整分数。
4. 不要因为某个回复更长就自动给高分，应重点判断其是否贴合来访者当前表达、是否有助于咨询过程。
5. 如果回复包含生硬说教、过早建议、忽视情绪、打断来访者表达、偏离主题、价值判断或不安全表达，应酌情降低相关维度分数。
6. 如果回复只是简短回应，例如“嗯嗯”“我在听”“可以继续说说”，但在当前语境下有助于鼓励来访者继续表达，也可以在反映性/主动倾听、非评判性接纳等维度获得合理分数；不要仅因短而低分。
7. 分数使用 0–5 分整数：5 = 非常好，4 = 较好，3 = 一般，2 = 较差，1 = 很差，0 = 完全没有体现该技能，或该回复与当前对话明显无关/无效。

【评价维度】

1. Empathic Understanding （共情性理解）
评价回复是否准确理解、回应并验证来访者的情绪、处境和主观体验。高分回复应能体现对来访者感受的准确把握，并以温暖、支持性的方式回应。

2. Reflective / Active Listening （反映性/主动倾听）
评价回复是否显示咨询师正在认真倾听来访者，包括抓住关键信息、回应来访者的主要关注点，并适当反映其情绪、内容或隐含需求。高分回复应让来访者感到“被听见”和“被理解”。

3. Non-judgmental Acceptance （非评判性接纳）
评价回复是否保持尊重、中立和接纳，不批评、不指责、不否定来访者的经历、情绪或选择，也不强加价值判断。高分回复应让来访者感到安全、被尊重，并愿意继续表达。

4. Collaborative Exploration Facilitation （协作性探索促进）
评价回复是否以协作方式帮助来访者继续表达、澄清问题、探索自己的感受、想法、需求或可能的方向。高分回复应能自然推动对话深入，而不是过早建议、替来访者下结论，或过度控制谈话方向。

【输入】

【对话历史】
{dialogue_history}
【候选回复】
A: {response_A}
B: {response_B}
C: {response_C}

【输出要求】
请严格输出 JSON，不要输出任何 JSON 之外的解释文字。JSON 格式如下：

```
{
  "scores": {
    "A": {
      "Empathic Understanding": 0,
      "Reflective / Active Listening": 0,
      "Non-judgmental Acceptance": 0,
      "Collaborative Exploration Facilitation": 0
    },
    "B": {
      "Empathic Understanding": 0,
      "Reflective / Active Listening": 0,
      "Non-judgmental Acceptance": 0,
      "Collaborative Exploration Facilitation": 0
    },
    "C": {
      "Empathic Understanding": 0,
      "Reflective / Active Listening": 0,
      "Non-judgmental Acceptance": 0,
      "Collaborative Exploration Facilitation": 0
    }
  },
  "brief_reason": {
    "A": "用1-2句明回复的主要点与不足。",
    "B": "用1-2句明回复的主要点与不足。",
    "C": "用1-2句明回复的主要点与不足。"
  }
}
```

注意：每个维度必须是 0 到 5 的整数；不需要对候选回复进行排名；允许多个回复获得相同或相近分数；`brief_reason` 应简洁，不要超过两句话。

Figure 20: Prompt for response quality evaluation.

Prompt for Response Quality Evaluation (English Translation)

You are an expert evaluator of psychological counseling dialogue quality. Your task is to independently score multiple candidate counselor responses, given the same dialogue history, in terms of counseling skills related to relationship building and exploration facilitation.

Notes:
1. All responses should be scored based on the same dialogue history.
2. The scoring target is the current counselor response only; do not evaluate the entire dialogue history.
3. Judge each response independently. Do not intentionally compare candidate responses or adjust scores merely to create differences.
4. Do not automatically give a higher score just because a response is longer. Focus on whether it fits the client's current expression and helps the counseling process.
5. If a response contains rigid lecturing, premature advice, neglect of emotion, interruption of the client's expression, topic deviation, value judgment, or unsafe expression, lower the relevant scores accordingly.
6. If a response is brief, such as "mm-hmm," "I am listening," or "please continue," but helps encourage the client to continue in the current context, it may still receive reasonable scores in reflective/active listening and non-judgmental acceptance. Do not score it low only because it is short.
7. Scores are integers from 0 to 5: 5 = excellent, 4 = good, 3 = fair, 2 = poor, 1 = very poor, and 0 = the skill is completely absent or the response is clearly irrelevant/ineffective.

Evaluation Dimensions

1. Empathic Understanding
Evaluate whether the response accurately understands, responds to, and validates the client's emotions, situation, and subjective experience. A high-scoring response should show an accurate grasp of the client's feelings and respond in a warm and supportive manner.

2. Reflective / Active Listening
Evaluate whether the response shows that the counselor is listening carefully, including capturing key information, responding to the client's main concerns, and appropriately reflecting emotions, content, or implicit needs. A high-scoring response should make the client feel heard and understood.

3. Non-judgmental Acceptance
Evaluate whether the response remains respectful, neutral, and accepting, without criticizing, blaming, denying the client's experiences, emotions, or choices, or imposing value judgments. A high-scoring response should make the client feel safe, respected, and willing to continue expressing themselves.

4. Collaborative Exploration Facilitation
Evaluate whether the response helps the client continue expressing, clarify the issue, and explore feelings, thoughts, needs, or possible directions in a collaborative way. A high-scoring response should naturally deepen the dialogue rather than offering premature advice, drawing conclusions for the client, or overly controlling the direction of the conversation.

Input

Dialogue History
{dialogue_history}

Candidate Responses
A: {response_A}
B: {response_B}
C: {response_C}

Output Requirements
Strictly output JSON only. Do not output any explanation outside the JSON. Use the following format:

```
{
  "scores": {
    "A": {
      "Empathic Understanding": 0,
      "Reflective / Active Listening": 0,
      "Non-judgmental Acceptance": 0,
      "Collaborative Exploration Facilitation": 0
    },
    "B": {
      "Empathic Understanding": 0,
      "Reflective / Active Listening": 0,
      "Non-judgmental Acceptance": 0,
      "Collaborative Exploration Facilitation": 0
    },
    "C": {
      "Empathic Understanding": 0,
      "Reflective / Active Listening": 0,
      "Non-judgmental Acceptance": 0,
      "Collaborative Exploration Facilitation": 0
    }
  },
  "brief_reason": {
    "A": "Briefly describe the main strengths and weaknesses of this response in 1-2 sentences.",
    "B": "Briefly describe the main strengths and weaknesses of this response in 1-2 sentences.",
    "C": "Briefly describe the main strengths and weaknesses of this response in 1-2 sentences."
  }
}
```

Each dimension must be an integer from 0 to 5. No ranking of candidate responses is required. Multiple responses may receive the same or similar scores. The `brief_reason` should be concise and no longer than two sentences.

Figure 21: English translation of the prompt for response quality evaluation.

Item	Content
Dialogue history	... 来访者: 你好。 (Hello.) 咨询师: 你好，你今天想要讨论哪方面的话题呢？ (Hello, what topic would you like to discuss today?) 来访者: 我想跟你谈一谈我和我男朋友感情的问题。 (I want to talk with you about my relationship with my boyfriend.) 咨询师: 嗯嗯。 (Mm-hmm.) 来访者: 就是我现在有点犹豫，要不要跟他分手。我跟男朋友在之间有一个学姐，他们关系很好。 (I am hesitating about whether to break up with him. There is a senior female student between me and my boyfriend, and they have a very close relationship.) 咨询师: 是男朋友的学姐？ (Your boyfriend's senior?) 来访者: 男朋友比我高一级，刚开始我和他都是学委，在工作中有过接触。因为他比我高一届，在很多事情上都会指导我，所以有一次我就用一个陌生的QQ试探他到底有没有女朋友，他说没有，后来他感觉到是我，就跟我确认了。然后我就问他，"我做你女朋友好不好?"他说好，我们两个就在一起了。 (My boyfriend is one year ahead of me. At first, we were both class representatives and had contact through work. Because he was one grade above me, he often guided me on many things. Once, I used an unfamiliar QQ account to test whether he had a girlfriend, and he said no. Later, he realized it was me and confirmed it with me. Then I asked him, "Can I be your girlfriend?" He said yes, and we got together.)
Human reference	嗯嗯，那刚刚你说到的学姐是一个怎样的情况呢？ (Mm-hmm, then what is the situation with the senior student you just mentioned?)
Ours	听起来你们是在这种比较特殊的情况下结缘的，当时他是怎么看待这段关系的呢？ (It sounds like you got together under rather special circumstances. How did he view this relationship at that time?)
MeChat	听起来你们之间的发展还是挺顺利的。 (It sounds like things developed quite smoothly between you two.)

Table 16: Example of generated counselor responses for a relationship concern.

Item	Content
Dialogue history	... 咨询师: 你觉得是有的。 (You feel that there is a connection.) 来访者: 对，我当时就在想，是不是学姐分手了，他也受什么刺激了。 (Yes, I was wondering whether he was affected because that senior student had broken up.) 咨询师: 你猜测，学姐跟男朋友关系不好，他是受影响的。 (You are guessing that he was affected because the senior student's relationship was not going well.) 来访者: 嗯嗯嗯，对。 (Mm-hmm, yes.) 咨询师: 你感觉他对于你们的分手，有没有难过？ (Do you feel that he was sad about your breakup?) 来访者: 我也不知道。后来那一段时间，他就整天心情不好，我怎么哄他，都不行。 (I do not know either. During that period, he was in a bad mood every day, and no matter how I tried to comfort him, it did not work.) 咨询师: 总之有一点，学姐的恋爱关系发生了变化，他的心情也就不稳定了。 (In any case, one thing is that when the senior student's romantic relationship changed, his mood also became unstable.) 来访者: 对，然后就持续了一段时间，有一天，他不知道又发什么神经，忽然就跟我说，这段时间他对我的态度不好，他以后要好好对我，然后这件事情就这么过去了。 (Yes, and it lasted for a while. One day, for some reason, he suddenly told me that he had treated me badly during that period and that he would treat me better in the future, and then the matter just passed.) 咨询师: 嗯，所以你跟他的关系和学姐的感情状态还是有一定关联的，或者说，有一个人对他的情绪是有影响的，对吗？ (So your relationship with him is indeed somewhat related to the senior student's relationship status, or in other words, someone else has an influence on his emotions, right?) 来访者: 对！ (Yes!)
Human reference	所以这个关系的复杂性体现在这里，第二个就是，你跟他要求和好的时候，他向你提的条件是你要告诉你妈妈。你理解他为什么要提这个条件吗？ (So this is where the complexity of the relationship appears. The second point is that when you asked to get back together, the condition he gave was that you had to tell your mother. Do you understand why he made that condition?)
Ours	那么，如果撇开学姐这件事，你觉得他那时候的态度，是想让你和他彻底断绝联系吗？ (Then, putting aside the issue of the senior student, do you think his attitude at that time was that he wanted to completely cut off contact with you?)
MeChat	嗯，你说的没错。 (Mm, you are right.)

Table 17: Example of generated counselor responses for exploring relationship complexity.

Item	Content
Dialogue history	... 来访者: 可以买好药，在宾馆里服药自杀。 (I could buy the medicine and take it in a hotel to kill myself.) 咨询师: 如果你真的自杀成功了，在宾馆里自杀了，谁会第一个知道这个消息呢？ (If you really died by suicide in a hotel, who would be the first to know?) 来访者: 应该是父母吧，宾馆的人可能会报警，然后警察会找到我父母。 (Probably my parents. The hotel staff might call the police, and then the police would find my parents.) 咨询师: 你觉得他们看到你自杀的情景，他们会是什么反应？ (How do you think they would react if they saw the scene of your suicide?) 来访者: 悲痛欲绝吧。 (They would probably be devastated.) 咨询师: 你的前男友怎样知道你自杀的消息呢？ (How would your ex-boyfriend learn about your suicide?) 来访者: 我父母应该会从我的遗书里知道这件事，然后去找他算账。 (My parents would probably find out from my suicide note and then go to confront him.)
Human reference	那么你的前男友又会有什么反应呢？ (Then how would your ex-boyfriend react?)
Ours	听起来这对你来说是一个很沉重的负担，甚至让你感到有些不安。 (It sounds like this is a very heavy burden for you, and it even makes you feel somewhat uneasy.)
MeChat	亲爱的，你真的想自杀吗？ (Dear, do you really want to kill yourself?)

Table 18: Example of generated counselor responses in a crisis-related context.

Item	Content
Dialogue history	... 咨询师: 像是一段时间内可以互相支持的一种关系。 (It is like a relationship where you can support each other for a period of time.) 来访者: 对。 (Yes.) 咨询师: 像吗？ (Is that what it feels like?) 来访者: 是的，我现在恨不得他马上毕业走。 (Yes, I now almost wish he would graduate and leave immediately.) 咨询师: 如果他毕业了，你觉得你们的关系会怎么样？比如说，你会不会跟着他走，他会不会为你留下来？ (If he graduates, what do you think will happen to your relationship? For example, would you follow him, or would he stay for you?) 来访者: 不知道，我只是知道我不会跟他走，但是他具体愿不愿意留下这个问题，我是没有考虑过的。 (I do not know. I only know that I would not follow him, but I have not really thought about whether he would be willing to stay.) 咨询师: 所以目前这个阶段，觉得这段感情还是可以给你带来很多美好的感受，也有一些帮助。在这段感情里面，你们也经常会有争吵，会有痛苦，那这个部分，你会因为维持了这段感情然后接受它吗？ (So at this stage, you feel that this relationship can still bring you many good feelings and some support. But in this relationship, there are also frequent arguments and pain. Would you accept that part in order to maintain the relationship?) 来访者: 哎～有时候的争吵太痛苦了，就特别伤害我，我经常会一个人的时候想到这些，会觉得特别的委屈，我都想打我自己一巴掌，也想冲过去打我男朋友，打那个学姐一巴掌。我甚至想要自杀，当然也不是真的去自杀，我就想如果我自杀，他们会怎么样。 (Sigh, sometimes the arguments are too painful and hurt me deeply. When I am alone, I often think about these things and feel extremely wronged. I want to slap myself, and I also want to rush over and slap my boyfriend and that senior student. I even think about suicide, though not that I would actually do it; I just wonder what would happen if I did.) 咨询师: 听起来有很多愤怒？ (It sounds like there is a lot of anger?) 来访者: 对！ (Yes!)
Human reference	因为无论打自己，还是打男朋友，还是打学姐，包括最猛烈的伤害自己，感觉就是有很多的不满。 (Because whether it is hitting yourself, your boyfriend, or the senior student, including the most intense form of hurting yourself, it seems that there is a lot of dissatisfaction.)
Ours	你现在的情绪反应是很真实的，当人处在那种极度痛苦的时刻，确实很难保持理智，这很不容易。 (Your current emotional reaction is very real. When someone is in such extreme pain, it is indeed difficult to stay rational, and that is not easy.)
MeChat	嗯，我能理解你的感受。但是，你有没有想过，如果你真的去自杀了，他们会不会后悔呢？ (Mm, I can understand your feelings. But have you thought about whether they would regret it if you really killed yourself?)

Table 19: Example of generated counselor responses for anger and relationship distress.