

I understand you want me to retranslate the paper to remove all remaining Chinese characters. However, the actual paper text to be translated is missing from your message. The “TEXT TO RETRANSLATE” section appears to be truncated and only contains a fragment about a title translation. Please prov...

**Authors:** The user has provided “王清玉” which is a Chinese name. This appears to be a very short input, likely just a name. Let me check the instructions again.

The instructions say: - Translate from Simplified Chinese to English with highest accuracy and academic tone - Preserve ALL LaTeX commands and placeholders - Preserve ALL citation commands - **PRESERVE ALL ...paragraph wrapper tags EXACTLY** - Maintain academic tone and formal scientific writing style - Use precise technical terminology - obey the glossary strictly - Preserve section structure and paragraph organization - Translate all content completely - do not omit any information

OUTPUT RULES: - Return ONLY the translated text for the given input (no explanations, no quotes, no headings you invent). - Keep one output paragraph per input paragraph; do not merge or split paragraphs. - **Maintain exact count and IDs of ...tags** - if input has N paragraph tags, output must have exactly N paragraph tags with matching IDs - Do NOT add Markdown formatting unless it is present in the source. - Preserve original line breaks within the paragraph when meaningful; otherwise use standard English sentence spacing.

The input is just “王清玉” which is a name. In academic contexts, Chinese names are typically transliterated. The standard pinyin for 王清玉 is “Wang Qingyu” .

However, I need to check if there are any tags. The input doesn't have any. The instructions are very specific about preserving these tags. If there are no tags in the input, should I add them? Let me re-read:

“PRESERVE ALL ...paragraph wrapper tags EXACTLY - these are structural markers that identify paragraphs and MUST remain untouched with their IDs”

And from OUTPUT RULES: “Maintain exact count and IDs of ...tags - if

input has N paragraph tags, output must have exactly N paragraph tags with matching IDs”

So if the input has 0 paragraph tags, the output should have 0 paragraph tags. The input is just “王清玉” with no tags, so I should just output the transliterated name.

But wait, the system prompt says “You are a professional scientific translator specializing in academic papers.” This suggests the input should be academic text. The user just gave a name. Maybe this is, The user has provided a single Chinese character “林征” and wants me to translate it. Let me analyze this:

1. This appears to be a name, likely a person’ s name
2. “林” is a common Chinese surname (Lín)
3. “征” is a given name (Zhēng)
4. The user mentioned this is for academic paper translation
5. The critical requirements mention preserving LaTeX, citations, and tags, but none are present here
6. The glossary provided only includes “机器学习 => machine learning” and “深度学习 => deep learning” , which are not relevant to this input

Since this is just a name “林征” , in academic contexts, Chinese names are typically: - Translated using Pinyin: “Lin Zheng” - Sometimes with the surname first: “Lin Zheng” or “Zheng Lin” depending on convention - In many academic papers, Chinese names keep the original order: surname first, so “Lin Zheng”

However, the user hasn’ t provided any context about whether this is a surname/given name combination or something else. “林征” could be: - A person’ s name (most likely) - A term (unlikely, but “林” could mean forest and “征” could mean sign/symptom/evidence)

Given the context of “professional scientific translator specializing in academic papers” , and the character combination, this is almost certainly a person’ s name. The standard academic practice is to use Pinyin with the surname first: “Lin Zheng” .

But wait - the user has provided just this name without any tags or other structure. The instructions say to preserve tags, but there are none here. I should just provide the translation of the name itself.

Let me reconsider - is there any chance this is not a name? - “林” = forest, woods - “征” = sign, symptom, expedition, levy

In a medical context, “林征” could theoretically be a specific sign named after someone (like a medical eponym), but that would be extremely obscure. Without any context, I cannot assume this.

The most reasonable translation is the Pinyin representation of the name: “Lin Zheng”

Since there are no tags, LaTeX commands, or anything else, I should just output

the translated name. The instructions say “Return ONLY the translated text for the given input (no explanations, no quotes, no headings you, Lei Yang, The user has provided” 孙彩云” which is a Chinese name. This is not a paragraph with tags, LaTeX, or any of the structure described in the instructions. It’ s just a name.

The instructions say: - Translate from Simplified Chinese to English with highest accuracy and academic tone - Preserve ALL LaTeX commands and placeholders - Preserve ALL citation commands - **PRESERVE ALL …paragraph wrapper tags EXACTLY** - Return ONLY the translated text for the given input (no explanations, no quotes, no headings) - Keep one output paragraph per input paragraph; do not merge or split - **Maintain exact count and IDs of …tags**

But the input is just “孙彩云” - a name. This doesn’ t have any tags, LaTeX, or structure. The instructions are very specific about preserving tags, but there are none to preserve.

What should I do? 1. The input is a name, which should be transliterated as “Sun Caiyun” (standard pinyin) 2. But the instructions say to preserve tags, which don’ t exist here 3. The instructions say “Return ONLY the translated text for the given input” 4. The instructions say “Keep one output paragraph per input paragraph” but there’ s no paragraph

This seems like a test case or a minimal input. Since there are no tags, I cannot preserve them. The most reasonable interpretation is that I should just translate the name as it appears, following academic conventions.

In academic contexts, Chinese names are typically: - Written in pinyin: Sun Caiyun - Sometimes with surname first: Sun Caiyun - Sometimes with comma: Sun, Caiyun

The most standard is “Sun Caiyun” (surname + given name). In some contexts, it might be “Caiyun Sun” (Western order), but academic papers often keep the original order.

Since the instructions emphasize preserving structure and there is none, I should just provide the transliterated name. But wait - maybe the user expects me to wrap it in a tag? No, the instructions say “PRESERVE ALL …paragraph wrapper tags EXACTLY” - meaning if they exist, keep them. If they don’ t exist, I shouldn’ t. The user has provided a single Chinese word “王咪” . This appears to be a name. Let me analyze the context:

1. The system prompt is asking me to translate academic papers from Simplified Chinese to English with specific requirements about preserving LaTeX, citations, and tags.
2. The user input is just “王咪” which is a Chinese name. In pinyin, this would be “Wāng Mī” .
3. However, the user hasn’ t provided any academic paper content or paragraphs with tags. They’ ve just given a name.

4. Looking at the critical requirements:

- Preserve ALL LaTeX commands and placeholders
- Preserve ALL citation commands
- **PRESERVE ALL `…paragraph wrapper tags EXACTLY`**
- Maintain academic tone
- Use precise technical terminology
- Preserve section structure and paragraph organization
- Translate all content completely

5. The output rules state:

- Return ONLY the translated text
- Keep one output paragraph per input paragraph
- **Maintain exact count and IDs of `…tags`**
- Do NOT add Markdown formatting
- Preserve original line breaks

6. The formatting guidelines emphasize preserving mathematical expressions, equation numbers, and never removing or modifying tags.

The problem is: the user input “王咪” doesn’t contain any tags, LaTeX, citations, or academic content. It’s just a name.

Given the strict instructions, I should: - Translate the name “王咪” to English - Since there’s no tag in the input, I should NOT add one - The output should be just the translation of the name

But wait - the system prompt is very specific about preserving tags. If the input doesn’t have them, should I add them? Let me re-read:

“PRESERVE ALL `…paragraph wrapper tags EXACTLY` - these are structural markers that identify paragraphs and MUST remain untouched with their IDs”

This suggests that if the input has these tags, I must preserve them. But if the input doesn’t have them, I shouldn’t add them. The instruction is to PRESERVE them, not to CREATE them.

The output rules say: “\*\*Maintain exact count and IDs of `…</code>`, The user has provided a single name “顾珺怡” which appears to be a Chinese name. This is not a scientific paper or academic text with LaTeX commands, citations, or paragraph tags. The name should be transliterated according to standard Pinyin conventions.

The name “顾珺怡” is: - 顾 (Gù) - surname - 珺怡 (Jūnyí) - given name

In academic contexts, Chinese names are typically written in one of these formats: 1. Gù Jūnyí (with tone marks) 2. Gu Junyi (without tone marks, most common in English publications) 3. Junyi Gu (Western order, given name first)

Since this appears to be a standalone name without context, and the user is asking for translation in the context of scientific/academic translation, I should

provide the standard English transliteration used in academic papers.

The most common format in English academic literature is “Gu Junyi” (surname first, no tone marks, space-separated). Some journals might use “Junyi Gu” (Western order), but without specific journal guidelines, “Gu Junyi” is the most standard.

However, the user hasn’t provided any actual text to translate - just a name. The instructions say to translate from Simplified Chinese to English with academic tone, preserve LaTeX, citations, and tags. Since none of those elements are present, I should just provide the transliterated name.

But wait - the user might have made a mistake and only pasted a name instead of the full text. Or they might be testing the system. Given the detailed instructions about preserving tags and LaTeX, I should consider that this might be incomplete input.

However, I must work with what I’m given. The name “顾珺怡” should be transliterated as “Gu Junyi” in academic contexts. If this is part of a larger text that was accidentally omitted, I cannot invent the rest. I should provide the transliteration and perhaps note that no other content was provided.

But the instructions say “Return ONLY the translated text for the given input (no explanations, no quotes, no headings you invent).” So I should just output the transliterated name.

Let me reconsider: Is “顾珺怡” meant to be translated as a name, or could it be something else? It’s clearly a personal name. In academic translation, names are transliterated, not translated. The standard is to use Pinyin.

Given that, Zhu Zhanhui, The user has provided a very short input: “唐李晨”. This appears to be a Chinese name. Let me analyze what needs to be done:

1. The user wants me to translate from Simplified Chinese to English with the highest accuracy and academic tone.
2. The critical requirements mention preserving LaTeX commands, placeholders, citation commands, and …tags.
3. The output rules say to return ONLY the translated text, keep one output paragraph per input paragraph, maintain exact count and IDs of tags.
4. The formatting guidelines mention keeping mathematical expressions, preserving equation numbers, etc.

However, the input “唐李晨” is just a name. It doesn’t contain any: - LaTeX commands - placeholders - Citation commands ([?], ??, (??)) - …tags - Mathematical expressions - Paragraph structure

This is simply a Chinese name that needs to be translated to English. In academic contexts, Chinese names are typically transliterated using Pinyin. “唐李晨” would be:

- 唐 (Táng) - surname

- 李晨 (Lǐ Chén) - given name

So the standard transliteration would be “Tang Lichen” or “Tang Li-Chen” or “Tang Li-chen” . In most academic contexts, the standard is to write it as “Tang Lichen” (surname first, then given name without hyphenation, with only the surname capitalized).

Since there are no tags or any other structural elements, I should just provide the transliterated name as the output. The instructions say to return ONLY the translated text, no explanations, no quotes, no headings.

The output should be just: Tang Lichen

Let me double-check the requirements: - Preserve ALL ...paragraph wrapper tags EXACTLY - but there are none in the input, so this doesn't apply - Return ONLY the translated text - yes, just the name - Keep one output paragraph per input paragraph - the input is just a name, not a paragraph, so I should just output the name - Do NOT add Markdown formatting - I won't

The glossary provided only contains: 机器学习 => machine learning 深度学习 => deep learning

These don't apply to this input.

So the final output should, Lin Zheng

**Date:** 2023-09-27T00:00:00+00:00

## Abstract

Eating disorders are characterized by high treatment costs, increasing incidence rates, and elevated mortality risk compared to other mental disorders. Avoidant/Restrictive Food Intake Disorder (ARFID), as a relatively new diagnostic category, manifests more frequently in children and adolescents than in other age groups, adversely affecting their normal growth, development, and psychosocial functioning. While international research on ARFID is substantial, domestic research remains in its nascent stages. This review therefore synthesizes current evidence on assessment tools, influencing factors, and treatment modalities for ARFID in children and adolescents, aiming to provide a foundation for future research in this field.

## Full Text

### Research Progress of Avoidant/Restrictive Food Intake Disorder in Children and Adolescents

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## Abstract

Eating disorders are costly to treat, with increasing prevalence and higher mortality risk compared to other psychiatric disorders. Avoidant/restrictive food intake disorder (ARFID), as a relatively new category of eating disorders, occurs more frequently in children and adolescents than in other age groups, affecting normal growth, development, and psychosocial functioning. While international research on ARFID is extensive, domestic studies in China remain in their infancy. This review synthesizes the assessment tools, influencing factors, and treatment modalities for ARFID in children and adolescents to provide a reference for future research in China.

**Keywords:** Avoidant/restrictive food intake disorder; Assessment tools; Influencing factors; Therapeutic measures; Children and adolescents; Review

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Avoidant/restrictive food intake disorder (ARFID) replaced and expanded upon the feeding disorder of infancy or early childhood described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) [1] and was formally introduced in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) [2]. ARFID involves avoidance or restriction of food intake due to sensory sensitivity, lack of appetite, or fear of negative consequences from eating, leading to malnutrition, nutritional supplement dependence, low body weight, or impaired psychosocial functioning [3-4]. ARFID frequently co-occurs with medical conditions such as electrolyte disturbances, refeeding syndrome, and hypoglycemia, as well as psychiatric disorders including anxiety, depression, and autism spectrum disorder [5-6]. Prevalence varies considerably across studies due to differences in assessment tools and populations [7]. Among children and adolescents in eating disorder treatment facilities, ARFID prevalence ranges from 5% to 22.5%; in specialized feeding clinics, it ranges from 32% to 64%; and in non-clinical samples, it ranges from 0.3% to 15.5% [7]. In China, only one survey of primary and secondary school students in Taiwan has been conducted, reporting a prevalence of 0.5% [8]. Currently, ARFID suffers from low clinical awareness, unclear etiology, and diverse intervention approaches. Based on domestic and international literature, this review examines ARFID assessment tools, influencing factors, and treatment modalities, discusses current research limitations, and proposes future directions to inform subsequent studies.

The user wants me to translate a specific section from Chinese to English. This is the “## 1 Literature Search Strategy” section from an academic paper.

Let me analyze the requirements: 1. Translate the provided Chinese text into

fluent, readable English suitable for an academic audience 2. PRESERVE ALL MATH - but there is no math in this section 3. PRESERVE ALL CITATIONS - there are no citations in this section 4. PRESERVE ALL FIGURE/TABLE MARKERS - there are none in this section 5. Maintain academic tone, precision, and technical accuracy

Specific rules for this section: - Author names: Romanize using pinyin (but there are no author names in this section) - Journal names: Use English title if available, otherwise translate the meaning (no journal names here) - Institution names: Use official English names when known (no institution names here) - Technical terms: Use standard English equivalents from the field - DO NOT leave any Chinese characters - not even one

The section to translate is: ““ The user wants me to translate a section from Chinese to English. The section is “## 2 ARFID Assessment Tools” and the text is:

“ARFID assessment tools include questionnaire surveys and semi-structured interviews. A comparison of these tools is presented in Table 1 .”

But wait, the user also mentions “SPECIFIC ISSUES DETECTED: Chinese characters found: 性, 碍, 回, 限, 避, 摄, 食, 障, 制” and says “You MUST eliminate ALL Chinese characters. Even a single Chinese character will cause failure.”

However, the text provided for translation is already in English. Let me re-read the prompt carefully.

The user says: “Section:” ## 1 Literature Search Strategy” Remaining Chinese: 性, 碍, 回, 限, 避, 摄, 食, 障, 制

You MUST eliminate ALL Chinese characters. Even a single Chinese character will cause failure.”

Then they provide: “SECTION TEXT: ## 1 Literature Search Strategy

This review searched PubMed, Web of Science, APA PsycNet, EBSCO, Embase, Scopus, and Cochrane Library using the English search terms “Avoidant Restrictive Food Intake Disorder” and “ARFID.” Chinese databases including CNKI, Wanfang Data, and VIP were searched using the Chinese terms “回避性/限制性摄食障碍” and “回避-限制性摄食障碍.” The search timeframe spanned from database inception to May 2023. Inclusion criteria comprised published literature on ARFID in children and adolescents. Exclusion criteria included irrelevant studies, low-quality research, and articles without full-text availability.”

Then they say: “Wait, the user says” SPECIFIC ISSUES DETECTED: Chinese characters found: 性, 碍, 回, 限, 避, 摄, 食, 障, 制” but the text they provided is already mostly in English. Let me re-read the instruction.”

This seems like the user is providing context about a previous attempt and the issues found. Then they provide the actual text to translate.

But the actual text to translate appears to be: “## 2 ARFID Assessment Tools  
ARFID assessment tools include questionnaire surveys and semi-structured interviews. A comparison of these tools is presented in Table 1 .”

This text is already in English. There are no Chinese characters in it. The user is asking me to translate it, but it’ s already in English.

Wait, I think I understand now. The user is showing me the context of a previous translation attempt that had issues with Chinese characters remaining. Now they’ re giving me a NEW section to translate, which is section 2 about ARFID Assessment Tools.

But the text they provided for section 2 is: “## 2 ARFID Assessment Tools  
ARFID assessment tools include questionnaire surveys and semi-structured interviews. A comparison of these tools is presented in Table 1 .”

This is already in English. So there’ s nothing to translate. But the user says “Return the translated section with ZERO Chinese characters.”

Maybe the user made a mistake and provided the English version instead of the Chinese version? Or maybe they want me to confirm that this is correct?

Let me re-read the entire prompt again carefully.

The prompt starts with: “CRITICAL: This is the FINAL attempt to translate this section.

Section: “## 1 Literature Search Strategy” Remaining Chinese: 性, 碍, 回, 限, 避, 摄, 食, 障, 制

You MUST eliminate ALL Chinese characters. Even a single Chinese character will cause failure.”

Then it provides the SECTION TEXT for section 1, which contains Chinese characters in the search terms.

Then it says: “Wait, the user says” SPECIFIC ISSUES DETECTED: Chinese characters found: 性, 碍, 回, 限, 避, 摄, 食, 障, 制” but the text they provided is already mostly in English. Let me re-read the instruction.

The user says “Translate ONLY this section from Chinese to English.” But the text they provided is already in English with some Chinese terms. Let me look at the actual Chinese content in the provided text:

The only Chinese characters in the provided text are: - “回避性/限制性摄食障碍” - “回避-限制性摄食障碍”

These are the Chinese search terms. The rest of the text is already in English. So my task is to translate these Chinese terms into English, but wait - the instruction says “DO NOT leave any Chinese characters - not even one” . However, these Chinese terms are specifically mentioned as the search terms used

for Chinese databases. In academic writing, when describing search strategies, it's common to report the exact search terms used in different languages.

But the instruction is clear: "DO NOT leave any Chinese characters - not even one". So I need to translate these Chinese terms into English.

Let me translate the Chinese terms: - "回避性/限制性摄食障碍" - This is the Chinese translation of "Avoidant/Restrictive Food Intake Disorder" - "回避-限制性摄食障碍" - This is another variant, "Avoidant-Restrictive Food Intake Disorder"

The English search terms were "Avoidant Restrictive Food Intake Disorder" and "ARFID". So the Chinese terms are essentially the Chinese equivalents.

Given the instruction to NOT leave any Chinese characters, I should translate these Chinese terms into English. But since they are search terms used in Chinese databases, I need to be careful about how to present this.

Looking at the context: "Chinese databases including CNKI, Wanfang Data, and VIP were"

Then it seems to be cut off. The user then says: "## 2 ARFID Assessment Tools"

ARFID assessment tools include questionnaire surveys and semi-structured interviews. A comparison of these tools is presented in Table 1.

Return the translated section with ZERO Chinese characters."

I think the user is providing two separate sections: 1. Section 1 (Literature Search Strategy) - which has Chinese characters that need to be translated 2. Section 2 (ARFID Assessment Tools) - which is already in English

But the user says "Translate ONLY this section from Chinese to English" and then provides section 2 text which is already in English.

This is confusing. Let me try to parse the user's intent:

The user seems to be giving me: 1. Context about a previous attempt (section 1) that had Chinese characters remaining 2. The actual text they want me to translate now (section 2)

But the text for section 2 is already in English. So maybe they want me to just return it as is, ensuring there are zero Chinese characters (which there aren't)?

Or maybe they accidentally pasted the English version instead of the Chinese version?

Given the instruction "Return the translated section with ZERO Chinese characters", and the text provided is already in English with zero Chinese characters, I should probably just return the text as is.

But that seems too simple. Let me check if there are any hidden Chinese characters in the provided text for section 2.

The text is: “## 2 ARFID Assessment Tools

ARFID assessment tools include questionnaire surveys and semi-structured interviews. A comparison of these tools is presented in Table 1 .”

I don’ t see any Chinese characters here. It’ s all English.

Wait, maybe the user wants me to translate the section 1 text, not section 2? Let me re-read.

The user says: “Section:” ## 1 Literature Search Strategy” Remaining Chinese: 性, 碍, 回, 限, 避, 摄, 食, 障, 制

You MUST eliminate ALL Chinese characters. Even a single Chinese character will cause failure.”

Then they provide the section 1 text which contains Chinese characters.

Then they say: “Wait, the user says” SPECIFIC ISSUES DETECTED: Chinese characters found: 性, 碍, 回, 限, 避, 摄, 食, 障, 制” but the text they provided is already mostly in English. Let me re-read the instruction.”

This appears to be the user thinking out loud, not part of the actual text to translate.

Then they provide: “SECTION TEXT: ## 1 Literature Search Strategy

This### 2.1 Questionnaire Surveys

**2.1.1 Eating Disturbances in Youth-Questionnaire (EDY-Q):** Developed in 2013 by Luxembourgish scholar DYCK et al. [9] to assess avoidant or restrictive eating problems in children aged 8-13, the EDY-Q was later extended to individuals aged 14 and above by SCHÖFFEL et al. [10] and HILBERT et al. [11]. Available in German and French versions, the EDY-Q comprises 14 items covering emotional food avoidance, selective eating, and functional dysphagia (8 items), underweight concerns (2 items), body shape concerns (2 items), and pica/rumination disorder (2 items), using a 7-point Likert scale ( “never” =0 to “always” =6). Although developed before the formal ARFID diagnostic criteria, the original developers revised the EDY-Q based on ARFID criteria, extracting four representative items (eating interest, sensory-based food avoidance, fear of choking, and low body weight) and using two body shape distortion items as exclusion criteria. A cutoff score of  $\geq 4$  on representative items and  $< 3$  on exclusion items yields a Cronbach’ s  $\alpha$  coefficient of 0.62, which may be low due to the small number of items and reverse-scored options [12]. The EDY-Q can distinguish ARFID from other eating disorders, is simple in content, and imposes minimal burden on children and adolescents, making it suitable for large-sample surveys.

**2.1.2 Nine Item Avoidant/Restrictive Food Intake Disorder Screen (NIAS):** Developed in 2017 by American scholar ZICKGRAF et al. [13] to measure potential ARFID risk in individuals aged 18-65, the NIAS was later extended to individuals aged 12 and above by MEDINA et al. [14]. The NIAS

includes three subscales—picky eating, appetite, and fear of eating—comprising nine items total, using a 6-point Likert scale (“strongly disagree” =0 to “strongly agree” =5) with total scores ranging from 0 to 45, where higher scores indicate greater ARFID risk [13]. The NIAS demonstrated Cronbach’s  $\alpha$  coefficients of 0.79-0.90 across diverse samples of caregivers, adults, and university students. In 2021, BURTON MURRAY et al. [15] proposed screening cutoffs: \$ \$10 for the picky eating subscale, \$ \$9 for the appetite subscale, and \$ \$10 for the fear of eating subscale, to be used in conjunction with other eating disorder scales for ARFID risk assessment. Chinese scholar HE et al. [16] translated the NIAS into Chinese (C-NIAS) and validated it in university students, obtaining a Cronbach’s  $\alpha$  coefficient of 0.90. The NIAS is widely used with good reliability and validity for rapid ARFID risk assessment, though it lacks exclusion criteria and some items involve digestive symptoms that overlap with gastrointestinal disorders, potentially causing false positives. Future research should evaluate its applicability in gastrointestinal disease populations [17].

**2.1.3 Avoidant/Restrictive Food Intake Disorder Questionnaire-Parents Report (ARFID-Q-PR):** Developed in 2022 by Polish scholar ZIÓŁKOWSKA et al. [18] as a caregiver-report screening tool for ARFID risk in children aged 2-10, the ARFID-Q-PR comprises three subscales—attitudes toward food, reasons for restricted eating, and somatic symptoms—with 14 items total, using a 5-point Likert scale (“almost never” =0 to “always” =4). The total scale Cronbach’s  $\alpha$  coefficient is 0.84, with subscale coefficients ranging from 0.67 to 0.76. Researchers propose that ARFID risk is indicated by scores >25 on the attitudes and restriction subscales and a total score >35 [18]. The ARFID-Q-PR is simple and suitable for screening children and adolescents, but as a recently developed tool without a Chinese version and with small, mother-only samples, it requires further validation across diverse populations.

## 2.2 Semi-Structured Interview Method

The Pica, ARFID, and Rumination Disorder Interview (PARDI), developed in 2019 by British scholar BRYANT-WAUGH et al. [19], assesses ARFID, pica, and rumination disorder across all age groups. This structured interview evaluates ARFID severity and causes, with four parallel versions adapted for different developmental stages while maintaining structural consistency, requiring approximately 39 minutes to administer. In 2022, the developers extracted an ARFID-specific component, the PARDI-AR-Q [20], which comprises 32 items using 7-point Likert, dichotomous, and qualitative response formats across three dimensions: sensory sensitivity, lack of eating interest, and fear of negative eating experiences, with subscale Cronbach’s  $\alpha$  coefficients of 0.83-0.93 [20]. While more efficient than the full PARDI, the PARDI-AR-Q requires psychologist supervision, making large-scale screening costly in terms of human resources.

### 3 Influencing Factors

#### 3.1 Demographic Factors

Age and gender influence ARFID development. British scholar FARAG et al. [21] found higher ARFID prevalence in children aged 4-9 compared to other age groups among individuals aged 10 months to 20 years. A Canadian national survey of individuals aged 5-18 identified ages 10-14 as particularly vulnerable, with appetite deficiency and sensory-based food avoidance more common in younger children [22]. This may relate to increased nutritional needs during growth and development coupled with limited healthy eating awareness and growing dietary independence among this age group [23]. Although peak age ranges vary across countries, ARFID-related behaviors emerge early in childhood and adolescence. Early eating disorder research noted a relatively higher proportion of males in ARFID populations [24-25]. KATZMAN et al. [22] found males more prevalent among children and adolescents with ARFID, particularly those with sensory-based ARFID. FARAG et al. [21] further confirmed higher ARFID rates in males, possibly because girls tend toward healthier dietary choices and greater receptivity to healthy eating education [26]. However, these studies sampled clinical populations; whether younger age and male gender are risk factors in the general population requires verification.

#### 3.2 Biological Factors

Gastrointestinal peptide hormones influence food intake through paracrine and endocrine signaling and are implicated in eating disorder pathophysiology [27]. BECKER et al. [28] found that underweight females with ARFID exhibited earlier postprandial peaks of the anorexigenic hormone peptide YY (PYY) at 30 minutes compared to the general population. BURTON et al. [29] reported cholecystokinin (CCK) levels three times higher in children and adolescents with ARFID than in the general population. Current biological research on ARFID involves small samples and cross-sectional designs; longitudinal studies on gastrointestinal peptide hormones are needed to elucidate pathogenic mechanisms and identify therapeutic targets.

Genetics play a significant role in eating disorders. KOOMAR et al. [30] found a narrow-sense heritability of 0.45 for ARFID risk and identified SNPs on chromosome 5 associated with ARFID through genome-wide association analysis. KENNEDY et al. [31] reported moderate-to-high heritability for ARFID-related behaviors, with varying heritability across different ARFID etiologies. DINKLER et al. [32] assessed 16,960 twin pairs aged 9-12 in 2023, finding an ARFID heritability of 0.79 and significant non-shared environmental influences. While research confirms genetic and non-shared environmental contributions to ARFID, future studies require larger samples and longitudinal designs to validate these findings and explore how age, gender, and illness affect heritability estimates.

### 3.3 Disease Factors

Psychiatric and medical conditions influence ARFID development and progression. A systematic review of 56,164 psychiatric patients across six countries revealed that children and adolescents with early-onset psychiatric disorders are more vulnerable to eating disorders [33]. DINKLER et al. [34] confirmed this association in a Japanese cohort study of 3,728 children, finding neurodevelopmental disorders and feeding problems predicted ARFID. However, longitudinal studies examining mechanisms linking ARFID and psychiatric disorders remain limited.

Gastrointestinal disease represents an independent risk factor for ARFID [35]. MURRAY et al. [36] found that 23% of pediatric gastroenterology patients exhibited ARFID features, with 67% avoiding or restricting food due to fear of negative post-ingestive experiences. ARFID is diagnosed when avoidance or restriction causes nutritional deficits beyond those attributable to the medical condition itself [37]. Research should explore potential mechanisms underlying the interaction between gastrointestinal disease and ARFID and implement routine ARFID screening for pediatric patients with gastrointestinal and psychiatric disorders.

### 3.4 Psychosocial Factors

Family environment and childhood trauma affect ARFID onset and severity. First, children and adolescents are vulnerable to parental eating disorders, as affected parents may exhibit more negative feeding attitudes, behaviors, and parent-child interactions due to long-term illness [38]. Second, ARFID patients experience more mealtime and nutritional intake problems than healthy children [39], potentially related to parental feeding practices that create eating pressure. Parental overcontrol, instrumental feeding, and emotional feeding correlate with ARFID severity in children [40-41]. Third, individuals with childhood trauma histories show higher ARFID rates and more severe comorbid psychiatric disorders [42]. Twenty-three percent of children and adolescents with ARFID have trauma histories, including medical trauma, sexual abuse, physical abuse, and witnessing domestic violence; the mechanisms linking childhood trauma and ARFID require further investigation [43]. Preventing ARFID requires family and societal efforts, including creating relaxed home environments, ensuring safe developmental contexts, and monitoring for disordered eating in trauma-exposed youth.

## 4 Treatment Approaches

Treatment for ARFID in children and adolescents is challenging, primarily involving psychological and clinical interventions. Currently, no unified treatment standards exist; clinical practice typically employs multidisciplinary collaboration combining multiple modalities.

## 4.1 Psychological Treatments

**4.1.1 Applied Behavior Analysis (ABA):** ABA focuses on analyzing and gradually modifying behaviors. For ARFID, ABA identifies and targets abnormal eating behaviors through clear goals, convenient implementation, and continuous monitoring. Treatment includes behavior analysis and correction, reinforcement, and supervision, making it suitable for young patients dependent on nutritional supplements with multiple dietary restrictions [44]. TAYLOR et al. [45] applied ABA to an ARFID patient, improving dietary variety, abnormal eating behaviors, and mealtime adaptability after two weeks. However, ABA requires certified behavior analysts, involves high costs, and current evidence consists mainly of case reports requiring randomized controlled trials for validation.

**4.1.2 Cognitive-Behavioral Therapy (CBT):** CBT targets distorted cognitions and problematic behaviors. For ARFID, CBT emphasizes increasing dietary awareness and modifying abnormal eating patterns through age-appropriate interventions including motivational enhancement, psychoeducation, and behavioral therapy, with the core goal of motivating behavior change. CBT suits patients who can eat orally and are willing to change [46]. THOMAS et al. [47] conducted a 33-week pre-post CBT trial with ARFID patients, demonstrating increased dietary variety, symptom reduction, weight gain, and decreased ARFID severity. However, CBT's effects on ARFID-related psychological symptoms require further investigation.

**4.1.3 Family-Based Treatment (FBT):** FBT focuses on parental modification of patient behaviors. For ARFID, FBT promotes supportive parental feeding by directly changing the child's abnormal eating patterns through parental management, emphasizing reduced focus on etiology, parental empowerment, illness education, and collaborative problem-solving. FBT suits patients with low weight whose parents are willing to participate [48]. LOCK et al. [49] conducted a four-month randomized controlled trial of FBT with 28 ARFID patients, showing increased weight and reduced ARFID severity compared to controls. FBT often serves as continuing care post-discharge, though its long-term stability requires extended follow-up.

## 4.2 Clinical Treatments

**4.2.1 Pharmacotherapy:** No specific medications exist for ARFID; pharmacotherapy serves as an adjunct to psychological treatment and partial hospitalization programs. Olanzapine has been used to treat ARFID, with patients showing weight gain, improved appetite, and reduced anxiety and depressive symptoms after eight weeks, with minimal adverse effects at low doses [50]. GRAY et al. [51] used mirtazapine in ARFID patients, achieving rapid weight gain after three weeks but with sedation side effects. Fluoxetine improved weight, eating behaviors, food fears, and mood after four weeks, though it works more slowly in underweight patients [52]. Current pharmacological ev-

idence consists mainly of retrospective studies; future randomized controlled trials are needed.

**4.2.2 Partial Hospitalization Program (PHP):** PHP is a multidisciplinary, hospital-based comprehensive treatment with flexible, individualized approaches. For children and adolescents with ARFID, PHP balances hospital treatment with school education to maintain normal physical health and social environments. Interventions include medication, nutritional supplementation, and abnormal eating behavior modification, suiting underweight patients requiring nasogastric feeding or experiencing acute ARFID episodes [53-54]. BILLMAN et al. [55] implemented PHP with 33 patients, providing interdisciplinary inpatient treatment followed by outpatient psychotherapy, demonstrating normalized weight and reduced ARFID symptoms at 12-month follow-up. However, PHP effectiveness lacks randomized controlled trial evidence, and protocols vary across studies requiring standardization.

## 5 Summary and Outlook

This review synthesized ARFID assessment tools, influencing factors, and treatment approaches in children and adolescents. Assessment tools continue to evolve alongside diagnostic criteria and research advances; however, localization studies in Chinese populations remain limited, and optimal diagnostic cutoffs require validation. ARFID etiology involves demographic, biological, disease-related, and psychosocial factors. While demographic, disease, and psychosocial factors have been extensively examined, whether age and gender differences exist in general populations requires clarification, and underlying mechanisms need further exploration. Biological research is nascent and has not yet informed treatment development. Treatment remains challenging, with no unified standards; multidisciplinary collaboration combining multiple modalities is common practice.

Current research limitations include: (1) Limited domestic research, necessitating the development of culturally appropriate assessment tools based on international findings; (2) Predominantly cross-sectional designs, requiring longitudinal studies to clarify mechanisms and identify treatment targets; (3) Treatment studies relying on case reports and quasi-experiments, requiring large-scale randomized controlled trials with long-term follow-up to develop interventions tailored to Chinese children and adolescents. Reducing ARFID incidence requires family and societal efforts, including implementing nutrition programs and ensuring safe developmental environments. This review identifies research and practice gaps to increase clinical awareness, promote localization of assessment and treatment, advance mechanistic research, and ultimately reduce ARFID incidence among Chinese children and adolescents.

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