

# Online Discourse of Depression in China

## Linguistic Characteristics of 'Zoufan' Community

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## Discussants

This paper has received a peer commentary from Amelie Kutter, European University Viadrina Frankfurt (Oder).

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The emerging and spreading of online mental health communities on social media have increasingly drawn scholarly attention. However, the extant literature mainly targeted the communities on English social networking sites; very few studies put their analytic lens into Chinese ones. This study fills this gap by investigating the salient linguistic features of 'Zoufan' Weibo, the largest online depression community in China. The linguistic analyses of the top 20 core members' comments demonstrated the prevalence of subject and pronoun ellipsis, wide use of negation, inhibition, mental states and irrealis words, and the pronounced characteristics of figurative and poetic languages, which were implicated with the core members' mental suffering and painful struggle against depression.

*Keywords:* Online Depression Community, Linguistic Features, Discourse Analysis, 'Zoufan' Weibo, Mental Health

### 1 Introduction

#### 1.1 Background

Depression, a common mental disorder or disease, is sweeping worldwide. In China, there are 54 million people diagnosed with depression (WHO, n.d.), with a 4.1 % prevalence rate among adults (Qin et al., 2018) and a significantly higher percentage of 15 % to 40 % among Chinese college students (Song et al., 2020). However, depression has not received enough treatment and attention in China owing to misconceptions, stigma, lack of effective therapies, and inadequate and unprofessional mental-health resources (Li et al., 2016; Liu et al., 2011; Ng et al., 2017; Smith, 2014; Yang et al., 2020; Yang, 2007; Zhang et al., 2018).

Probably under those constraints, a growing number of young people are turning to the Internet for an emotional outlet and social support. The emerging and spreading of online health-related communities on popular social networking sites (henceforth SNSs), such as Facebook, Twitter and Reddit, have been increasingly drawn scholarly attention (e.g., Carron-Arthur et al., 2016; Choudhury & De, 2014; Young, 2013). For example, people share difficult and painful experiences in support communities for the bereaved and some advice-seeking sites for stigmatized mental health on social media platforms<sup>1</sup>. In these places, people seem to unshackle social-cognitive, emotional, interpersonal and space restraints to confide their "dark sides" interwoven with different experiences and stories. Some of them even formed virtual friendships via the platforms because of mutual listening and encouragement. On the one hand, those sites proffer itself with a possibility that the online community may be a balm to the depressed ones via en-

1 In this research, social media is used as an umbrella term for websites and applications which enables the creation, distribution or sharing/exchange of information, whereas SNS is used when the nature of interactive and interpersonal networking of a site is emphasized. SNS is a type of social media, but a social media platform is not necessarily an SNS, and some other research works just use these two terms interchangeably.

agement in the community member's communication and sharing. On the other, those virtual mental health communities provide clues into the question 'why people got the illness' through their online expressions.

#### *About contents*

Many studies found that the majority of the sharing on social media is about routine or mundane activities, including the user's locations, the people they meet, and trivial events or real-world issues in everyday life, etc. (Choudhury & De, 2014; Georgakopoulou, 2016; Nimrod, 2013; Zhang et al., 2018). In particular, Georgakopoulou (2016) noted a set of textual features of online narratives that largely departs from the conventional narratives, including the fragmentations and open-endedness of stories, a tendency for reporting mundane and ordinary events in everyday life, and a proliferation of breaking news. In the light of these, she claimed that the starting point of analysing narratives on social media should be the recognition that those stories normally "announce and perform minute-by-minute every life experience; are transportable and circulatable in different media platforms, are embed into a variety of online and offline environment; are multi-semiotic and multi-authored; address simultaneously different, potential big and unforeseeable audiences" (Georgakopoulou, 2016, pp. 269–270). Her summary has covered the kernel features of narratives on social media. In a similar vein but narrowed down to the mental health communities, Choudhury and De (2014) investigated the language of the user's self-disclosure on Reddit, and found the user's online postings are closely related to their offline day-to-day activities and a reflection of the real-world issue they faced.

#### *About vocabularies*

Pronoun is a pronounced linguistic unit/category that drew much attention in various studies on online mental health communities or support groups (Choudhury & De, 2014; Kupferberg & Gilat, 2012). The first person singular pronouns were ubiquitous, and it is argued that the greater use of first person pronouns in posts garnered more responses, building a united front in battling with the depression (Choudhury & De, 2014; Zhang et al., 2018). Non-first person pronouns were the second most prominent category in online mental health communities, suggesting the user's tendency to interact with their audiences. Other referential choices, such as 'brother' and 'sister', drew the online distance closer and implied a sense of collectivity to shape a vital part of the group's identity.

Poetic and creative wording was another salient feature of the mental health narratives (e.g., Feldhege et al., 2020).

For example, expressions like 'hollow', 'void' and 'shell' were used to describe the inner feelings of the users. An important related finding here was the density of irrealis units and figurative forms, which appeared significantly higher in the suicidal messages than other trouble-burdened ones (Kupferberg & Gilat, 2012). Irrealis languages, such as talking about negation and wishes, are concerned about the future, possibilities, imperatives, and counterfactuals, which revealed the suicidal help seekers' ambivalent positioning between seeking help and shielding away from engagement, and their construction of future death. Also, Choudhury and De (2014) conceptualized a language model of the vocabularies on mental health discourse on Reddit, which include: 1. Extensive use of emotional or affective expressions, 2. The presence of relationships and social life words, 3. Visibility of temporal indicators, 4. Cognitive words and inhibition words.

Those findings paved for the study of this research's linguistic perspective. However, most of them were based on English social media platforms, and thus the results may not be applicable to Chinese sites. Also, the analysis of the linguistic features is relatively scattered without sufficient consideration of the user's mentality and the context of bigger discourse. It is necessary to include more data from other languages and cultural backgrounds. The analytical lens of this research is Weibo, an extremely popular SNS site born in China that takes Chinese as the primary medium of language. All the distinctive elements between Chinese and western-based platforms – languages usages and characteristics, the site affordance and positioning, mechanism and operation, the sociocultural background, customs and values, the nation's Internet supervision policies and systems, etc. – may generate divergent findings compared to those western-based platforms.

## **1.2 Related Works on 'Zoufan' Weibo**

Compared with the flourishing of research on online depression communities on Western-based social networking sites (e.g., Feldhege et al., 2020; Nimrod, 2013; Sik et al., 2021), there are little work on that in China (e.g., Li et al., 2016; Zhang et al., 2018) and scare literature targeted explicitly at Weibo.

Weibo, weico or sina.com is a microblogging and SNS like Twitter and Facebook. According to the 2019 annual financial report of Weibo, there were 516 million monthly active users by the end of 2019 (ITHOME, 2020). Among them, a group of people frequently visit a dead stranger's Weibo account named 'Zoufan'<sup>2</sup> (走饭). Ms. MA Jie, the blogger of 'Zoufan' and a college student in Nanjing born after the 1990s, committed suicide on 17 March 2012. Her Weibo page listed a farewell post via Pipi time machine function<sup>3</sup>

- 2 The name was an adaption of the Chinese title 'Xing Shi Zou Rou' of the American horror TV series 'The Walking Dead'. 'Zou' means 'to leave' and 'Fan' means 'meal', which implies that every meal for Ms. MA is utterly worthless (Gao & Meng, 2019).
- 3 It is a tool supporting the delayed delivery of posts at a particular point of time.

the following day she died, which has attracted a considerable number of followers since then. By February 2022, the account has more than 598,00 followers who show apparent depressive moods or disorders in their comments. This number has been increasing exponentially, with roughly 2,500 new followers every month on average. Compared to other online depression communities in China, 'Zoufan', a community and a unique social phenomenon, is more vibrant, radiated, and representative of today's mental health sharing practices on social networking sites, making it an optimal study case for this research.

The expression of negative emotions was the most popular theme of 'Zoufan', and there was a lack of information about depression treatment and social support providers (Tang et al., 2020). Relevant studies on 'Zoufan' can be divided into quantitative and qualitative types:

On the one hand, the quantitative-designed studies on 'Zoufan' focus on suicide prediction and prevention and psychological crisis forecast, which are based on the depressed people's discursive and behaviour patterns (Li, 2014; D. Wang, 2019; Yang et al., 2019). It is undeniable that these artificial intelligence interventions can detect suicidal intentions and tendencies promptly, however, such interventions may also only exist when the private messages are received, and mainly paid attention to the capture or crawling of certain negative messages or words. They did not offer a comprehensive linguistic landscape of 'Zoufan'.

Qualitative research on 'Zoufan', on the other hand, also focus on discursive and content analysis related to suicidal tendency but have a more in-depth analysis of the language nuances. Gao and Meng (2019) summarized four common discourse features of suicidal tendency, including (1) the overlapping between the realis and irrealis world, (2) decontextualized and fragmented expressions, (3) vast contents in line with depression disorders, and (4) frequent use of metaphors and images of death. Their attempts to conceptualize the suicidal discourse by classifying the languages into realis and irrealis units and relating it to crisis identification provide insights into the exploration between the self-displaying and languages resources. However, their analytical lens was concentrated on the posts of Ms. Ma, which are static texts, and did not discuss the dynamic comments under her posts. In contrast, Meng and Sun (2019) studied netizens' attitudes toward suicide from the perspective of Appraisal Theory by examining the comments under 'Zoufan'. They classified the languages into *affect*, *judgement* and *appreciation* semantic resources, and concluded that the overall attitude of the comments under 'Zoufan' is positive, with affect being the most used resources. Nevertheless, their conclusions divorced from the context of the larger discourse of cyber language, and there was no selection standard for the studied sample.

Also, ethical considerations were not well addressed at all in this study.

Both quantitative and qualitative research on 'Zoufan' mentioned above focus more on recognizing suicidal ideation/tendency, which did not provide relatively comprehensive information about the contents and linguistic features of 'Zoufan' community. Concentrating on linguistic features, the present study investigates the top followers' comments on 'Zoufan' and tries to answer the following questions:

RQ1: What kind of linguistic features characterized the discourse of 'Zoufan' community?

RQ2: How did the participants describe and construct depressive experiences via those linguistic representations?

## 2 Data and Methods

### 2.1 Research Site

This research studies the depression community formed under the farewell post, which reads “我有抑郁症，所以就go去死一死，没什么重要的原因，大家不必在意我的大家不必在意我的离开。拜拜啦。” (Translation: I suffer from depression, and just choose to die. Do not worry about me and my death, since I did not die for any important reasons. Bye Bye.) (Ma, 2012). There is a strong rationale to only focus on this last posting: it is this last and symbolic message left by Ms. MA that echoed substantial and ceaseless followings<sup>4</sup>, and it is also this significant post that makes the 'Zoufan' a live and dynamic community with “regular members” confiding their depressive experience.

Python (2020) was used to trace and crawl the comments under the last post of 'Zoufan'. Fields collected include 'username', 'user id', 'year', 'month', 'day', 'time (24-hour)', 'text content', 'type (comment/replied comment)<sup>5</sup>', 'reply name (if any)' and 'like count' of each comment. Data collecting was carried out from August to December 2020 on a daily basis. In total, 77,778 pieces of comments posted by 11,660 users have been collected. Among this whole data population, only 18 % of comments were written to reply to another commentator. This indicates that most of the commentators did not interact with others but just came to confide their individual emotions, feelings and stories. This is compatible with previous research findings (e.g., De Fina, 2016) that most comments in social media were not posted in response to a previous one and sustained dialogue or topic development is not the most typical kind of interaction. In this sense, most commentators were actually self-enclosed while self-disclosing. They were reluctant to engage in dialogue with others whilst

4 There are more than 114,000 reposts, over 1 million comments and about 160,000 likes under this last post (updated on 22 Feb 2022).

5 Under type, 'replied comment' means the comments written as replies to other commentators.

sharing, further highlighting an emotional and communicative paradox in the online depression community.

This whole data set is enormous and challenged for fine-grained data coding, interpretation, and analysis. To identify the group of users who strongly identify themselves with 'Zoufan' among all the followers, I took those who were the most active in commenting and replying as the foci of participants. Two criteria were set to sort them out of the total data population, which include: (1) During the collection period, the participant at least wrote comments in three different months continuously or discontinuously, and (2) the total of the comments by the participant must be 90 pieces at least and above<sup>6</sup>. Despite that it is almost impossible for me to tell who of the followers truly developed depression, by taking these two criteria of filtering, I could at least locate a group of people who developed a behavioural habit of sharing emotions under 'Zoufan' continuously and regularly, and this group of people apparently had a stronger emotional attachment with 'Zoufan' and a higher possibility of having persistent depressive moods or disorders. There were 67 followers under this screening standard. I then focus on the top 20 users' data (hereinafter called core members). Altogether 2,000 pieces of the core members (100 pieces for each) were selected for fine-grained and in-depth analysis to answer the research questions.

## 2.2 Data Transcription and Analysis

The core members' data set was imported into NVivo 12 plus for coding (hereinafter called NVivo). To save the original features and form of the Chinese language, I imported and coded the original data as it was and employed literal translation methods in the later transcription. I tried to present the data as self-evident and let them speak for themselves, but since a salient feature of those comments is fragmentary, mundane without sufficient contextual information provided, sometimes it is necessary to present fore-and-aft comments and supplement some missing items (such as subjects and linking words) in the parentheses to make the English expressions more fluent and closer to the original text's meaning.

Under the framework of discourse analysis (Angermuller et al., 2014; Gee & Handford, 2013), a textual analysis was conducted firstly around word frequency and then categorized by grammar, lexical and semantic units, which mainly includes two parts: themes and structures.

The thematic approach, viewing language as a resource, is helpful for discovering common thematic elements across multiple cases and different research participants (Riessman, 2005) and "illuminate participants' sense-making of themes" (Bamberg, 2020, p. 246). The comments of the core members were coded into thematic nodes according

to emerged events, characters and topics, which provides clues to the aboutness of the contents of the comments. Structural analysis revisited the basic dimensions of narrativity, such as temporality, coherence and grammar. Prototype-like stories are fully-fledged that have structured temporal organization (Labov, 1972; Labov & Waletzky, 1967) or a neat categorization of beginning-middle-end. However, a considerable number of comments under 'Zoufan' are fragmented, disorganized and incoherent, most of which fail the prototypical definitional criteria (e.g., temporal ordering) of stories and even could not be deemed as stories. How to define and describe the particular structure, namely, how a story is told with particularity (such as the dislocation of sentence constituents and missing syntactic components), then makes the exploration of the linguistic features of online depression-related expression worthy.

Besides, all information and data are handled professionally while privacy, anonymity, and confidentiality are ensured to address ethical concerns. All the names shown in this paper are further pseudonymous, and the whole data set will not be shared at all.

## 3 Analysis and Discussion

### 3.1 Subjects and Pronouns Ellipse

Many previous studies associated the use of first person singular with depression, and even take the word 'I' as a better indication of depression than negative emotion words (Choudhury & De, 2014; Chung & Pennebaker, 2007; Kupferberg & Gilat, 2012; Rude et al., 2004; Zhang et al., 2018). However, in this research, it was found that the missing of the subject is very common. More than 15 % of core members' comments were observed as subjective missing. All comments in Examples Series (hereinafter referred to as Ex.) 1 have omitted the first person singular 'I' and expressed the same theme of desiring to die/suicide.

Example Series 1:

(1) Commented by Katie:

Original: 一直在挣扎, 想眼一闭就死掉。

Translation: (I) have been keeping struggling, (I) wish to die immediately when closing my eyes.

(2) Commented by Sky:

Original: 在深夜里无数次想要杀了自己。好累阿。不知道最想要的是什么, 也不知道接下来的路该怎么走。好像除了死亡别无选择。

6 The line of 90 and above is drawn according to thirty days a month and three months in total.

Translation: (I) wanted to kill myself countless times in the middle of the night. (I'm) so tired. (I) do not know what I want most, and (I) do not know where to go. It seems (I) have no choice but to die.

(3) Commented by Molly:

Original: 又梦到自己烧炭了，没死掉，被发现了，被骂。醒来一阵失落，还是想死掉。

Translation: (I) dreamed of burning charcoal again (to kill myself), (but) did not die, was (then) discovered, and scolded (by parents). I woke up with a pang of loss, (and I) still wanted to die.

(4) Commented by Kai:

Original: 真的好无聊好想死。真的没有朋友。找不到人说话。真的很想死啊啊啊。

Translation: (I) feel really bored and want to die. Indeed (I) have no friends. (I) cannot find a person to talk to. I really want to die āh āh āh<sup>7</sup>.

The omission of subject pronouns is probably because the texts were in Chinese, and subject omission and absence are abundant and common in Chinese expressions. The relationship between the subject and the predicate verb is loose in Chinese; the subject does not determine the form of the verb, nor is it indispensable. On the one hand, the subject ellipse is usually for sentence refinement and flexible processing of the subject person (H.-l. Wang, 2019); on the other, Chinese, as a language without inflexion, emphasizes ideas over rules, meaning over form, and sensibility over logics (Liu, 2012). Unlike English has a clear division of subject and object and emphasizes individuality, the Chinese language pays attention to subjectivity and often describes objective things from the perspective of self, or tends to describe behaviours or states centred around oneself, and therefore, often omit the pronouns when it is self-evident (Huang, 2016). Besides the language attributes of Chinese, the style of subject ellipse also reflects a particular thinking model and philosophy of Chinese people. Liu (2012) stressed that Chinese philosophical thinking is derived from humanism, which is more speculative about human life, existence, meaning and value. Thus, the perspective of many narratives is from one's own point of view. Personal insights and intuitive experience are of prominence.

However, a particular case about agentless or subjectless expressions is not self-evident, that is, when the personal pronouns omitted is 'you' but still refers to 'I'. In Ex. 2, Katie adopted a third-person tone with criticism by blaming herself for not being able to socialize with others. In the second sentence, the omitted subject is 'you', given the ending question points to 'you'. Shame can 'empower' one to oneself into the first and third person (Hong, 2020). As addressed by Sartre, "Shame is by nature recognition. I recognize that I am as the Other sees me" (Sartre, 1993, p. 222), Katie used the second personal pronoun here to

see herself from others' eyes and expressed with the 'group of people'.

Example Series 2:

(1) Katie:

Original: 一堆人在一起聊天说话，不说话的我显得好孤独明显特别被注意。总是在人群中暴露情绪，总是苦着一副脸，谁靠近你？任何心情都往脸上写。

Translation: A group of people were chatting and talking together, (but) I did not talk and looked like very lonely and obviously noticed (by others). (You) always expose emotions in the crowd, (you) always show a bitter face, (so) who want to approach you? Any mood (of you) was written on the face.

Altogether, I argue that the use of first person singular pronouns should not be taken as a significant index of depression narratives in the Chinese corpus. On the other hand, I tried to find clues about community collectivism by looking for first person plural ('我们' – we, us, our) as well as collective nominal phrases (e.g., people, teams, members, etc.), only to find that such kinds of expression were rare in the core members' data set.

### 3.2 Negation and Inhibition Words

'No/not (不)' was the single word with the highest frequency with a weighted percentage of 3.99 %, according to NVivo's word frequency. Privatives or negative/inhibitive suffixes were prevalent among the core members' comments, as shown by the underlined words in Ex. 3. Such negation has revealed three different themes:

First was the core members' perceptions towards their mental conditions and life states. For example, Flo in Ex. 3 (1) conveyed the feeling that her mentality was driving her to the edge of madness, Jane in Ex. 3 (2) claimed that her life was as good as death, and Katie in Ex. 3 (3) expressed her deep sadness and sense of numbness ('could not feel own existence'); Second was their negative, pessimistic or scornful evaluations towards the internal self and the external world. For instance, Molly in Ex. 3 (4) claimed the world, an abstract concept her with a sense of totality, treated her so 'unfriendly' that it gave her nothing. At the same time, Lily's comment in Ex. 3 (5) displayed manifested self-contempt by her own identity declaration as 'abnormal and useless person'. The negative comparison was represented by 'I' and 'others', with 'cannot' indicating incapability. These comments reflected a delusional and absolutist thinking (Al-Mosaiwi & Johnstone, 2018; Association for Psychological Science, 2018; Fear et al., 1996; Hsiao et al., 1999). Third was confusion. Among this data set, more than 61 % of the comments are associated with emotions and moods. Among the latter, more about 5 % pointed to feelings of confusion, characterized by the phrase 'don't know'.

### Example Series 3:

#### (1) Commented by Flo:

**Original:** 情绪总是反反复复, 时好时坏, 我已经感受不到快乐了。心态崩了, 感觉要疯了。感觉自己不会变好了。

**Translation:** My moods are always up and downs, sometimes good, sometimes bad, I cannot feel happy anymore. My mentality went breakdown, (and) I think I'm going to be crazy. (I) feel myself will not get better.

#### (2) Commented by Jane:

**Original:** 真的生不如死。好难过, 好绝望一点都不想去上班我会崩溃的

**Translation:** To live is no better than to die indeed. So sad, so hopeless (,) I do not want to go to work (,) I will collapse.

#### (3) Commented by Katie:

**Original:** 感受不到快乐, 感受不到自己的存在。我一点儿都不开心!

**Translation:** (I) cannot feel happiness, cannot feel my own existence. I am not happy at all!

#### (4) Commented by Molly:

**Original:** 世界对我太不友好了我一无所有哈哈。

**Translation:** The world is so unfriendly to me that I have nothing hā hā hā.

#### (5) Commented by Lily:

**Original:** 我想过正常人的生活, 可是好像好难, 因为我就不是一个正常人! 来到世界就是这样苟活, 什么也做不了!!! 想看到我的价值被人需要, 可是我一无是处!!

**Translation:** I want to live a life as ordinary people, but (it) seems so difficult, because I am not an ordinary person! (I) came into the world to muddle along like this, and cannot do anything!!! (I) want to see my value being wanted, but I am useless!!/

#### (6) Commented by Kai:

**Original:** 我好累。感觉每天都是不知道该做什么。迷茫。

**Translation:** I'm so tired. (It) feels like I do not know what to do every day. Confused.

Together with negation were inhibition words, such as deny, escape and avoid, which were used to convey feelings of fear, embarrassment, uneasiness, and the condition of being inhibited to express and behave naturally. In Ex. 4 (1), Lily identified what made her feel afraid – socializing with people by talking and chatting. She probably at-

tempted to have dialogues with others before, but due to some unknown reasons, she developed social phobia by going to the extreme (with the pronoun 'everything'), leading to incoherent oral expression and withdrawal proneness. Such social phobia was more obvious in Debby's comment, in which she communicated a painful desire to escape and suicide. Similarly, Melia in Ex. 4 (3) expressed an unnatural state of performance in facing her colleagues, 'putting on a happy face', aligning with the atypical disorder 'smiling depression', a term used to describe that one hides his/her sadness behind a happy façade (Davis, 2020; Gunnerson, 2020). Also, Kim in Ex. 4 (4) expressed the 'escape' mentality and absolutist thinking by saying 'away from people and everything', revealing the tendency of self-isolation and withdrawal from social activities.

### Example Series 4:

#### (1) Commented by Lily:

**Original:** 越来越害怕说话, 怕说错!! 无论现实还是网络, 我都害怕说话聊天, 好像说什么都错, 语言功能退化, 好像自闭的人没有言语语无伦次……

**Translation:** (I'm) more and more afraid to speak, afraid of saying the wrong thing!! No matter in real life or on the Internet, I am afraid of talking and chatting, as if everything I said was wrong, and (my) language function degraded, like autistic people who do not speak incoherently...

#### (2) Commented by Debby:

**Original:** 我自闭且社恐曾经我也是开朗活泼的人人生似乎走着走着一切都面目全非除了逃避和自杀什么也不剩了。

**Translation:** I'm withdrawn and social phobic (.) I used to be a cheerful and lively person (.) Life seems to be going on with everything changed (,) and nothing left but escape and suicide.

#### (3) Commented by Melia:

**Original:** 我有点累, 和同事强颜欢笑更累, 我不想和人打交道, 让我一个人待着吧。

**Translation:** I feel a bit tired, and it is more tiring to put on a happy face to my colleagues. I do not want to deal with people, just leave me alone bā.

#### (4) Commented by Kim:

**Original:** 我心里一点儿也不强大每时每刻都想逃避 逃避人逃避一切。

**Translation:** My heart is not strong at all (,) I want to run away every moment (,) away from people and from everything.

7 'bā' and other words with a short dash on top refer to modal particles (onomatopoeia).

Prior literature suggested that the anonymity of the online environment enables users to use inhibition words to share socially stigmatic issues and topics, and disinhibition can be an effective healing process (Choudhury & De, 2014; Rude et al., 2004). Although the wide use of inhibition words in the core members' data set was not directly linked to the stigma of depression, they still imply a stigmatic self-perception by strong self-denial and a sense of helplessness, which pointed to the core members' inability or resistance to accepting themselves.

### 3.3 Mental States and Irrealis Words

The previous examples showed that the core members widely used mental state languages to express emotions and moods, accounting for 32.3 % of the studied data set. Since verb is usually the focus of inquiry in the discourse analysis related to psychology (Goodman, 2017), I drew on the mental process of transitivity analysis (Halliday, 1978; Halliday & Matthiessen, 2004; Martin & White, 2005), further identified and coded four sub-types of verbs and verbal phrases that denote mental states, as shown in Table 1.

The dominant cognitive and desiderative words of high frequency included '想' (want/wish/think) and '觉得/感觉' (feel/think about). Together with those mental languages were the density of irrealis units, which aligned with previous studies demonstrating that irrealis discourse is a prominent linguistic feature of suicide message senders (Kupferberg & Gilat, 2012). 'Death or die' is a salient theme: In this data set, 111 comments were associated with death, among which more than 70 % were irrealis comments that expressed the core members' imagination about death and desire to die. For example, all comments in Ex. 5 manifested the occurrence of irrealis languages and mental processes in expressing a wish to leave the world. On the one hand, the core members were talking about a kind of 'future possibilities'; on the other, they expressed a painful desire for death and mistook death/suicide as a happy release. For instance, Kai in Ex. 5 (3) expressed her imagination about the world after death. The adjective 'selfish' and the imperative sentence structure led by 'let' connotated that Kai was aware of the thoughtlessness and irresponsibility of suicide. Even so, she pleaded for being allowed to do that, and thus accentuated the longing for death.

#### Example Series 5:

##### (1) Commented by Miya:

Original: 真想去一个新冠比较严重的国家, 染上, 死去。

Translation: (I) really want [desideration] to go to a country where coronavirus (epidemic) is more serious, get infected, and die.

Table 1. Types of mental process under transitivity analysis of core member data set

Codes	Number of comment coded (percentage %)	Number of core member coded (percentage %)
Cognition	265 (13.25 %)	20 (100 %)
Desideration	219 (10.95 %)	19 (95 %)
Emotion	109 (5.45 %)	18 (90 %)
Perception	53 (2.65 %)	17 (85%)

##### (2) Commented by Qi:

Original: 许愿今年年底之前可以因病去世。我想要得绝症。

Translation: (I) wish [desideration] to die of disease before the end of this year. I want [desideration] to get an incurable disease.

##### (3) Commented by Kai:

Original: 想到死就很开心。终于结束了。没有痛苦了。让我自私吧。

Translation: (I) feel happy [relational process] when thinking about death [cognition]. All will be finally over. No more pain. Let me be selfish bā.

##### (4) Commented by Katie:

Original: 感觉活着就会继续不断伤害别人, 想走, 离开这个世界。

Translation: (I) think [cognition] if (I) continue to live (I) will continue to hurt others, I want to go [desideration], leave the world/

Moreover, the comments in Ex. 5 showed an absence of contextualizing explanations, which responded to the prior research suggesting that the suicide message senders depicted their suffering without offering contextualizing and explanatory information when expressing a wish to die. This is because they always oriented the domain of realis (e.g., the past and the present) to the irrealis (e.g., the future), refrained from addressing other users, distanced themselves from the world of experience, and avoided writing detailed self-revealing narratives (Kupferberg & Gilat, 2012; Kupferberg & Green, 2005).

### 3.4 Figurative and Poetic Languages

Metaphorical cluster is another prominent linguistic feature of suicide message senders and other trouble narratives (Kupferberg & Gilat, 2012; Kupferberg & Green, 2008). It was validated that organizing figurative forms are "story internal devices encapsulating the narrator's positioning" and help construct a summative version of the narrator's self (Kupferberg, 2010, p. 382) in troubled talk, including suicidal messages. At the same time, it was

claimed that figurative clusters (chains of figurative forms) were highly relevant to emotional states of mind and occurred when troubled narrators were forced to explore different source domains for sense-making in facing unexpected obstacles in an ongoing communication process. Moreover, metaphor clusters marked 'critical' moments or junctions in the discourse (Cameron & Stelma, 2007; Kupferberg, 2010).

This core members' data set has partially supported the above argument. I identified 225 comments employing rhetorical devices, including irony, metaphor and simile, repetition, comparison, hyperbole etc. These figurative languages work as an index for analyzing the core member's self identities and positioning, as well as their life situations and mental illness conditions. In Ex. 6 (1), Summer's comment displayed the juxtaposition of loneliness and self-disgust. Being lonely but avoidant to social connection, people with more lonely feelings experience more self-disgust, which leads them to a more socially inhibitive situation (Ypsilanti, 2018). By metaphorizing herself as an island, Summer represented herself as an isolated and lonely person, and with 'no-good', she conveyed a high degree of self-depreciation. Via the device of metaphor/simile also, Lily and Kai likened themselves to garbage in Ex. 6 (2) and Ex. 6 (3) and constructed their identity as a worthless person with low self-esteem and high self-contempt. The last two comments demonstrated how metaphor/simile and hyperbole worked together to express the core members' emotional suffering and withdrawal tendency.

#### Example Series 6:

##### (1) Commented by Summer:

Original: 讨厌自己。把自己活成了孤岛。是个没出息的人。

Translation: (I) hate myself. I live my life like being on a lonely islet [simile]. I am a no-good person.

##### (2) Commented by Lily:

Original: 讨厌我的性格，讨厌自己存在！！如垃圾。

Translation: I hate my personality, hate my own existence!! (My existence is) like garbage [simile].

##### (3) Commented by Kai:

Original: 活着。没有盼头。你知道吗？没有。找不到工作。赚不到钱。买不起房。什么都没有。垃圾底层就是我。

Translation: Live. (But) no hope. Do you know? No. (I) cannot find a job. (I) cannot make money. (I) cannot afford to buy a house. (I) have nothing. The garbage at the bottom is me [metaphor].

##### (4) Commented by Princess:

Original: 像个地狱一样的人生。我快要窒息死了。

Translation: A life (is) like hell [simile]. I'm suffocating to death [hyperbole].

##### (5) Commented by Kim:

Original: 我心里一直有巨大的黑洞 我快掉进去了 深渊。我心里一点儿也不强大每时每刻都想逃避 逃避人逃避一切。

Translation: There is a huge black hole [metaphor] inside my heart (,) I'm almost falling into it (,) the abyss [metaphor]. My heart is not strong at all, I want to run away every moment [hyperbole]. (,) away from people and from everything [hyperbole].

Although figurative forms conceptualize the life and mental states of the narrator, I did not see the function of metaphor clusters in dealing with internal or external obstacles that occurred in the communication in this data set. This is perhaps because a vast majority of the comments were very short and appeared like soliloquy, instead of aiming for interactional sense-making. As suggested by Kupferberg and Gilat (2012), the narrators used metaphors to distance from actual experience and interpersonal dialogues. Those commentators also showed a sense of alienation via constructing a soliloquized ideological world. This world filled with many imaginations reflected the narrator's sensitive and vulnerable inner self, implicated with the previous discussion on negation, inhibition and irrealis.

Additionally, poetic language/creative writing was a notable topic in online depression communities (Feldhege et al., 2020). All comments in Ex. 7 reflected the core members' philosophical thinking towards life and death via poetic, abstract and vague languages.

#### Example Series 7:

##### (1) Commented by Sky:

Original: 当我开始接受黑暗的那一刻起，就已经不再期待黎明。枯萎的向日葵是抬不起头看太阳的。

Translation: From the moment I started to accept the darkness, I no longer looked forward to the dawn. A wilted sunflower cannot lift its head to face the sun.

##### (2) Commented by Molly:

Original: 心脏已经溃烂了怎么也不能愈合了唯有死亡才能解脱。

Translation: The heart has festered and there is no way to heal it (,) only death can give the relief.

##### (3) Commented by Flo:

Original: 有的事情一下子过去了，有的事情很久也过不去。活着真的很没意思。

Translation: Some things passed in a short time, and some things cannot be overcome for a long time. Living is so meaningless.

(4) Commented by Summer:

Original: 你怎么过一天你就怎么过你的一生。对我来说怎么就这么难啊?

Translation: The way you live your day is the way you live your life. Why it is so difficult for me?

(5) Commented by Wayne:

Original: 生不是开始，死也不是结束，真特么无聊。

Translation: Life is not the beginning, death is not the end, it's fucking boring.

In Ex. 7 (1), Sky's poetic analogy between herself and a wilted sunflower represented herself as lacking vitality or spirit. Here the darkness connotes depression. Molly in Ex. 7 (2) described the highly intensified pain in her inner heart — a festering heart that could not be healed anymore, and only death can relieve the pain. Flo in Ex. 7 (3) implied the difficulty of getting through some memories or experiences with a comparison — 'some passed but some cannot', and probably due to such undesirable juxtaposition, she concluded that life was meaningless. The following comment expressed Summer's perception about 'live a day' and 'live a life' and implied her predicament of not even being able to live a day well. The last one showed Wayne's languished and numb attitude towards life. Her construction of 'boring life' is similar to 'meaningless life' in Flo's comment. Again, most of the talks were short, fragmentary and without contextual information.

#### 4 Conclusion and Implication

Taking a discourse analysis perspective, this paper fills in the literature gap of scarce studies on the mental health discourse on Chinese-based social media platforms and enriches the discussion on the online depression community in China. Some of the results were consistent with the previous literature on English-based social media and online mental health discourse, such as the sharing of experiences and emotions, the high self-attentional focus in narratives, the wide use of irrealis units and figurative forms in expression, and the prevalence of small talks in content, etc. However, there are also different and new patterns that offer a nuanced understanding of depressive discourse in China's online depression community on SNSs. For example, I argued that the use of first person singular pronouns is no more a vital and common marker of depression narratives in the Chinese corpus. Also, behind the prevalence of inhibition, mental languages, and irrealis words were the core members' emotional suffering, mental struggle, isolation/withdrawal and self-denial/self-contempt, etc., in living with depression.

It should be noted that the most articulated and content producers of 'Zoufan' community came from a group of users who contributed to maximum sharing of depression

experience but played a minimal role in interacting with others. A strong sense of individual alienation and self confinement, instead of collectivity, became the main tone of the community. This has very little relevance to a sense of 'big family' or connected interpersonal relationships as argued by previous studies (e.g., Zhang et al., 2018). Secondly, different from what one might expect, the positive outcomes of the sharing, such as camaraderie, console, empathy, appeared to be few in the data set. A tiny group of followers played the role of 'consolation', and an even smaller group of followers played the role of 'contagion', but the vast majority were individual sharers who were still lonely yet connected and disclosing emotions while being enclosed. This is perhaps because 'Zoufan' is an unmanaged depression-focused community in China where the positive impact of community response to members' social support was insignificant (Tang et al., 2021). To some extent, the phenomenon also resonated with Turkle (2015)'s arguments that social media does not make emotions easy and unable to be alone actually brings more loneliness, which may reflect the real state of mind and life of the contemporary depressed young people.

A fundamental question is that if the 'Zoufan' community provides little support for its members, why did the followers still come and attach to it? A closer but not quite suitable explanation is the famous "echo chamber" phenomenon, whereby people are inclined to discuss issues only with other like-minded people (Du & Gregory, 2016). On the one hand, the followers did gather on 'Zoufan' because they were aware of the nature and identity of the site as a depression community. On it, they did not need to worry about being criticized, despised, or stigmatized by other members, and they knew it was a place where they could be seen. However, mass participation or engagement does not mean collective interaction. I did not see wide and frequent discussions between the members, nor did I see the polarization of views or opinions. What polarized was not the views or understandings of depression, as depression itself is very personal, but the user's behaviour patterns of being extremely interactive to non-interactive at all. Future studies may probe into the complicated association between the linguistic features of depression discourse, the mechanism of the online depression community, the members' participation style, and their identity construction.

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