CONTENT AND CHARACTERISTICS OF SELF-IDENTITY AMONG CHINESE COLLEGE STUDENTS WITH INTERNET ADDICTION IN SNS USE: A THEMATIC ANALYSIS

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Fifteen Chinese college students with internet addiction from one urban site in Guangdong Province participated in individual face-to-face interviews. Qualitative thematic analysis was conducted using an inductive approach to identify and examine the patterns emerging from the data. The results showed that self-identity of Chinese college students with internet addiction included four themes: complex and discordant self-other relationships, low recognition of their role as students, multiple negative personality traits, and unclear self-concept. All respondents identified self-other relationships as an important component of self-concept, with parent-child relationships being the most critical sub-theme. The self-identity of internet-addicted college students was generally characterized by a negative emotional tone, and the themes covered were similar to those of the general population except for “unclear self-concept.” In a particular cultural context, one’s name may be an appropriate answer to the question “Who am I?” in reflecting self-identity.

Key words: self-other relations, student roles, personality traits, self-concept, internet-addicted college students

INTRODUCTION

Human growth is a continuous socialization process in which self-identity plays a vital role (Jetten et al., 2012). Self-identity refers to the consistent and continuous subjective feeling and experience that an individual has in time and space with regard to their inherent abilities, beliefs, and personal history (Erikson, 1968). Individuals with strong self-identities have a high sense of acknowledgement of their own words and actions. Erikson (1968) argued that stage 5 of individual psychological development (12–20 years of age) was a critical period for the formation of self-identity in adolescents, and Arnett (2000) extended the age range of stage 5 to 18–25 years. The importance of establishing a clear identity has been widely recognized in different developmental theories (Arnett, 2000; Erikson, 1968; Kernberg & Caligor, 2005). However, identity...
formation research differed significantly in their focus: some studies focused on the content of identity formation, while others focused on the process of identity formation (McLean et al., 2016).

Currently, most research on self-identity are quantitative studies, while only a few are qualitative. Only 15 journal articles containing qualitative research related to self-identity were retrieved from searches (excluding reviews and methodological literature), published from 2010 to 2018. The subjects of those studies included pregnant women (Chang et al., 2010; Tillotson et al., 2013), visually impaired adults (Dyakov & Radchikova, 2016; Senra et al., 2011), gay persons (Yang & Xie, 2011), college students who were adopted in their early years (Jia & Lei, 2011), family caregivers of advanced cancer patients (Ugalde et al., 2012), asexual individuals (MacNeela & Murphy, 2015), women with borderline personality (Agnew et al., 2016), ex-convicts (Gao, 2017), people with psychological and behavioral disorders (Dyakov et al., 2016; Pérez-Corrales et al., 2019), and people with non-chemical forms of addiction (including internet addiction; Malakhovskaya & Dyakov, 2018). Most of these qualitative studies examined the processes, stages, and influencing factors of self-identity formation or reconstruction, and few focused on the content and characteristics of self-identity in special groups. Studies involving Belarusian university students found that the functional structure of self-identity of internet addicts differed significantly from that of general university students (Dyakov, 2016; Malakhovskaya & Dyakov, 2018). Researchers have found that internet-addicted college students tended to take personality traits as categories or components of self-identity and had difficulty combining different events from their social history into a single event sequence that was inherently logical (Dyakov, 2016).

In summary, quantitative research has found that an individual’s self-identity consists of the domains of ideology and interpersonal relationships, which can be examined from two main perspectives, as a dynamic process or static status. However, few qualitative studies have explored the content and characteristics of self-identity of special groups, especially internet addicts. While this has been observed in studies by Dyakov (2015, 2016) and Malakhovskaya and Dyakov (2018), their findings were only based on the Belarusian cultural background and have not been widely validated in other cultural contexts. Existing studies have shown that the socio-cultural environment has an important influence on self-identity, and the large variation in the results of self-identity studies may stem from cultural differences (Dugarova et al., 2020; Erikson, 1968; Kayama & Yamakawa, 2020; Liu, 2019; Sharipov, 2013). The question now is, what is the content structure of self-identity of internet-addicted college students in the Chinese cultural context? What are the characteristics of their self-identities? This study examined the self-identity of internet-addicted Chinese college students using a thematic analysis approach from qualitative research to answer the above questions.

The reasons for adopting the qualitative research method instead of quantitative research methods revolve around the exploratory nature of qualitative methods. There has been very little psychological research on the content and characteristics of self-identity of special groups, especially internet addicts, and hence little is known about these aspects. Qualitative research is suitable for exploring such relatively unknown
topics (Wang & Huang, 2021). Another reason is the flexibility of qualitative methods. Through in-depth interviews, the researcher may directly interact with research subjects and explore the thoughts and feelings of the interviewees by asking questions and following up on them. Thematic analysis is a flexible and open approach of qualitative data analysis (Braun & Clarke, 2006; Vaismoradi et al., 2013) whereby the researcher is neither restricted to the rigid theory-based model nor confined to the mechanical coding of content analysis, but can decide the path of analysis according to the characteristics of the data, making it suitable for exploratory psychological studies.

In short, thus far, little is known about the content and characteristics of self-identity of internet-addicted college students. Due to the lack of corresponding research, qualitative methods, especially the thematic analysis method, can explore the research theme in more open and deep ways. The data collected in this study is also very suitable for thematic analysis.

**RESEARCH METHOD**

*Basic Information of the Interviewees*

The Smartphone Internet Addiction Classification Scale for College Students was administered as a questionnaire to 252 students in a university in Guangdong Province, China, and was collected on the spot after completion. A total of 229 valid questionnaires were collected, with a valid return rate of 90.9%. The

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Alias</th>
<th>Sex</th>
<th>Age</th>
<th>Year</th>
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</tr>
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<tbody>
<tr>
<td>1</td>
<td>ZYX</td>
<td>Female</td>
<td>19</td>
<td>2</td>
<td>Pre-school education</td>
</tr>
<tr>
<td>2</td>
<td>CCZ</td>
<td>Female</td>
<td>22</td>
<td>3</td>
<td>Pre-school education</td>
</tr>
<tr>
<td>3</td>
<td>FRY</td>
<td>Female</td>
<td>20</td>
<td>2</td>
<td>Pre-school education</td>
</tr>
<tr>
<td>4</td>
<td>HJY</td>
<td>Female</td>
<td>20</td>
<td>1</td>
<td>Pre-school education</td>
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<tr>
<td>5</td>
<td>HQT</td>
<td>Female</td>
<td>24</td>
<td>3</td>
<td>Pre-school education</td>
</tr>
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<td>6</td>
<td>HSX</td>
<td>Female</td>
<td>19</td>
<td>3</td>
<td>Special education</td>
</tr>
<tr>
<td>7</td>
<td>LJY</td>
<td>Female</td>
<td>20</td>
<td>2</td>
<td>Special education</td>
</tr>
<tr>
<td>8</td>
<td>LWR</td>
<td>Female</td>
<td>19</td>
<td>1</td>
<td>Pre-school education</td>
</tr>
<tr>
<td>9</td>
<td>YJB</td>
<td>Female</td>
<td>21</td>
<td>2</td>
<td>Special education</td>
</tr>
<tr>
<td>10</td>
<td>ZYS</td>
<td>Male</td>
<td>21</td>
<td>1</td>
<td>Special education</td>
</tr>
<tr>
<td>11</td>
<td>ZSY</td>
<td>Female</td>
<td>22</td>
<td>3</td>
<td>Pre-school education</td>
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<tr>
<td>12</td>
<td>ZZJ</td>
<td>Female</td>
<td>20</td>
<td>3</td>
<td>Special education</td>
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<tr>
<td>13</td>
<td>ZWH</td>
<td>Female</td>
<td>21</td>
<td>2</td>
<td>Pre-school education</td>
</tr>
<tr>
<td>14</td>
<td>DDG</td>
<td>Male</td>
<td>23</td>
<td>4</td>
<td>Primary education</td>
</tr>
<tr>
<td>15</td>
<td>XXR</td>
<td>Male</td>
<td>22</td>
<td>4</td>
<td>Primary education</td>
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</tbody>
</table>
questionnaire scores were totaled and ranked from high to low. According to the diagnostic criteria, students with a total score greater than or equal to 63 were diagnosed with smartphone internet addiction (Hu et al., 2017). The respondent inclusion criteria were smartphone internet addiction; no previous participation in similar or identical studies; and willingness to participate in this study by signing a written informed consent. Respondents were selected using purposive sampling and were interviewed in depth on a one-to-one basis. A total of 15 students participated in the study, with internet addiction scores ranging from 76–98 and aged from 19–24 years ($M = 20.87$, $SD = 1.51$). There were three male students and 12 female students, with three in their freshman year, five in their sophomore year, five in their junior year, and two in their senior year. There were five students majoring in special education, eight majoring in preschool education, and two majoring in primary education. The details of the respondents are shown in Table 1.

**Screening of Internet Addicts**

Respondents were screened and identified for internet addiction in social networking site (SNS) use by the Smartphone Internet Addiction Classification Scale for College Students.

The Smartphone Internet Addiction Classification Scale for College Students was developed by Hu et al. (2017) and included four dimensions with a total of 24 questions. Sample questions included “I spend a lot of time on social apps (QQ, WeChat, Weibo, etc.) every day.” A 5-point Likert scale was adopted, ranging from 1 (not at all) to 5 (completely). In this study, the internal consistency of the scale measured using Cronbach’s alpha was .906. A higher score on this scale indicated a greater likelihood and severity of smartphone internet addiction, and was thus used for screening of internet addiction.

**Procedures**

A semi-structured interview procedure developed by Dyakov (2015) was used for data collection, which consisted of two sequential stages. In the first stage, the respondents were required to answer the question “Who am I?” within three minutes with no upper limit to the number of answers provided. However, a minimum of three answers were required. Next, respondents were asked to rank the three answers they had chosen in the order of importance, with the most important ranked first, and so on. In the second stage, respondents were asked to address their three answers in turn. For the first answer, respondents were asked to list key events from the past in which they were shown to be the bearer of these events and therefore able to describe themselves in these terms. Respondents were also asked to list future key events in which they planned to be the bearer. Based on the list of key events, respondents were required to combine these different events into an autobiographical story. Respondents were asked to do the same for their second and third answers. Interviews were conducted by the first author and data collection was stopped after theoretical saturation was reached (Braun & Clarke, 2021). Interviews ranged from 48 to 153 minutes, with an average duration of 71 minutes.

**Data Analysis**

To extract the themes, responses were subjected to a thematic analysis involving six phases (Braun & Clarke, 2006; Nowell et al., 2017): familiarization with the material, generating initial codes, finding common themes, reviewing themes, labelling and defining themes, and producing reports. Thematic analysis involves the active search for significant or interesting meanings and patterns by the researcher (Braun & Clarke, 2006). Moreover, the authors adopted a three-tiered approach to enhance the analysis process (Fossey et al., 2002). First, the first and fourth authors shared coding sessions to revise the initial codes, generate themes, and resolve disagreements by reaching a consensus. The first author then relayed the initial findings back to the respondents to check whether the interpretations of their narratives were plausible. Second, the first and fourth authors worked together to create the codes (see Table 2) and themes. Third, all authors systematically identified and validated the final main themes and sub-themes. To make sure that we presented the most plausible understanding of the participants’ self-identity, we also asked respondents’ opinions about the generated themes and integrated their feedback when refining and finalizing the current research findings. Once the themes were generated, the interview texts were read again to consolidate the final results and identify exceptions (Strauss & Corbin, 1998). The first and fourth authors, who have some experiences in thematic analysis, analyzed the data. They were guided by the correspondence author who is experienced at qualitative research, having published many key related articles previously.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
<th>Theme coding and examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex and discordant self-other</td>
<td>Negative parent-child relationships</td>
<td>Being favored by my parents: My parents are very willing to spend money on me (14, DDG). Good relationship with father: My father’s simple and rough way of education has led to bad father-son relationship (13, ZWH).</td>
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<tr>
<td></td>
<td>Non-stable friendships</td>
<td>Good relationship with friends: I am mild-tempered and get along well with my friends (6, HSX). Few close friends: I feel it is difficult to make many close friends (2, CCZ). Good relationship with my mother: My mother and I have a good relationship. She is just like a big girl (12, ZZJ). Relationships changed from good to bad: I drifted away from two good friends (13, ZWH).</td>
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<tr>
<td></td>
<td>A tainted classmate relationship</td>
<td>Tainted relationships: I think classmate relationships now are not what it used be (7, LJY). Bad relationships: Many of my classmates are now too snobbish and it is difficult to have a good relationship with them (7, LJY). Relationship went from good to bad: One classmate was very close to me before but then slowly alienated me (3, FRY). Relationships went from bad to good: My relationships with so many of my classmates have improved (8, LWR).</td>
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<td></td>
<td>A love-hate sentiment to the native hometown countryside</td>
<td>My hometown is beautiful: My hometown is beautiful and I love my hometown (2, CCZ). My hometown is too poor: My hometown is remote and very economically-disadvantaged (15, XXR). Bad social environment in my hometown: There are a lot of bad customs in my hometown and the social environment is not very good (14, DDG).</td>
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<tr>
<td></td>
<td>A mixed feeling towards the homeland country</td>
<td>Pride: I am very proud to be Chinese (9, YJB). Rapid development: In recent years, China has developed quite rapidly (9, YJB). Large gap between the rich and poor: There are still a number of poor villages in China, and the gap between the rich and poor seems to be getting wider (12, ZZJ).</td>
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<td></td>
<td>Under-recognized student roles</td>
<td>Current students majoring in preschool education: I became a college student but didn’t have the willingness to study (3, FRY).</td>
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<td></td>
<td>Students who lacked the motivation to learn</td>
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<tr>
<td>Theme</td>
<td>Sub-theme</td>
<td>Theme coding and examples</td>
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<tr>
<td>Students who lacked interest in their major</td>
<td>Students majoring in special education</td>
<td>Honestly, I have little interest in the special education major (7, LJY).</td>
</tr>
<tr>
<td>Students who were averse to learning</td>
<td>Current college student</td>
<td>I didn’t really want to study since I was little (12, ZZJ).</td>
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<tr>
<td>Multiple negative personality traits</td>
<td>Low self-confidence or even low self-esteem</td>
<td>Fear of challenge: When faced with something difficult, the first thing I think of is not how to fix it, but how to give up on it (11, ZSY).</td>
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<td></td>
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<td>Feeling insignificant: I feel small, as if I am not even getting any attention (13, ZWH).</td>
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<td>Stage fright: I’m afraid to even speak out loud in a crowded place (8, LWR).</td>
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<td>Unhappy with my physical appearance: I’m not good looking (12, ZZJ).</td>
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<tr>
<td></td>
<td></td>
<td>Unhappy with my personality: I have a bad personality too (12, ZZJ).</td>
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<tr>
<td>Not diligent</td>
<td></td>
<td>Procrastination: I’ve been putting off the Guzheng exam for three or four years and still haven’t taken it (11, ZSY).</td>
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<td></td>
<td></td>
<td>Action upon pushing: I’ll only take some actions if I’m pushed (11, ZSY).</td>
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<tr>
<td></td>
<td></td>
<td>Getting by: I don’t have any ambitions. I’ll just get by (6, HSX).</td>
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<tr>
<td>Slow starter</td>
<td></td>
<td>Non-initiative: I don’t initiate communication with people (7, LJY).</td>
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<td></td>
<td></td>
<td>Time consuming: It takes me a while to talk to people (7, LJY).</td>
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<tr>
<td>Unclear self-concept</td>
<td>Denial of physical self</td>
<td>Short: I’m a short person (6, HSX).</td>
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<td></td>
<td></td>
<td>Ugly: I’m not good looking (13, ZWH).</td>
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<td>Too fat: I’m too fat and need to lose weight (13, ZWH).</td>
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<tr>
<td>Confused social self</td>
<td>Club officer</td>
<td>I was president of the literature club in high school, but I didn’t seem to be qualified for the position (13, ZWH).</td>
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<td></td>
<td></td>
<td>Being left out: I often felt being left out by my classmates since I started middle school, I don’t know who I am anymore (11, ZSY).</td>
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<tr>
<td>Negative emotional self</td>
<td>Emotionally weak</td>
<td>I feel like I’m cold-hearted (13, ZWH).</td>
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<td></td>
<td>Rapid mood swings</td>
<td>I have rapid mood swings and often have difficulty controlling my emotions (15, XXR).</td>
</tr>
<tr>
<td></td>
<td>Don’t really like my name</td>
<td>I never really liked my name until I was in high school and wanted to change it (9, YJB).</td>
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</tbody>
</table>
**Ethical Considerations**

The Research and Ethics Committee of Lingnan Normal University approved the study (Protocol: 2020-037). Participants gave consent in writing, of their willingness to take part in the study. Additionally, we assured the participants of their liberty to withdraw from the study at any point without penalty. We explained the purpose and procedure of the study to participants and informed them that data would be kept anonymous and confidential.

**RESULTS AND DISCUSSION**

The thematic analysis yielded four key themes as well as potential sub-themes that helped present the content and characteristics of self-identity among Chinese college students with internet addiction. The themes are discussed below.

**Complex and Discordant Self-Other Relationships**

Zheng et al. (2016) proposed that self-identity included four aspects: self-acceptance, self-continuity, self-meaning, and self-other relationships. Self-other relationships were the most apparent in the self-identity of internet-addicted college students, including five sub-themes of parent-child relationships, friendships, relationships with classmates, relationships with hometowns, and relationships with the country. From the examples cited by participants, “self-other relationship” here refers to a real relationship rather than a virtual relationship. All 15 respondents mentioned self-other relationships, with parent-child relationships being the focus of their attention. Eight people, comprising of more than half of the respondents, mentioned parent-child relationships as an important component of their self-identities. However, the overall self-other relationships of internet-addicted college students were disintegrated. Among the 15 participants, the self-other relationships mentioned by 12 of them were not very good. For example, ZWH believed that her parents paid too much attention to her younger siblings and favored them at her expense, resulting in a poor relationship with her parents for a long time. ZYS mentioned that as a political science class representative, she was more demanding of her classmates, making her relationship with them rather intense.

Chinese college students with internet addiction viewed self-other relationships, especially parent-child relationships, as a very important component of self-identity. The current findings shared similarities and differences with the results of existing studies (Balistreri et al., 1995; Bennion & Adams, 1986). The similarity was that interpersonal relationships were an important component of self-identity for college students. The slight difference was that interpersonal relationships involved in the studies by Balistreri et al. (1995) and Bennion and Adams (1986) were mainly relationships with peers and friendships, whereas in this study, parent-child relationships were highlighted first and foremost among all kinds of interpersonal relationships. Possible reasons for this difference included the difference in study subjects: the subjects of the first two studies were general college students, while the subjects of this study were internet-addicted college students. Studies have confirmed that there were significant differences in self-identity both qualitatively and quantitatively between internet-addicted college students.
and general college students (Dyakov, 2016; Malakhovskaya & Dyakov, 2018). Second, the cultural contexts differed. The first two studies took place in a typical Western cultural context (USA) while this study took place in an Eastern cultural context (China). Differences in cultural backgrounds largely affected the results of past self-identity studies (Dugarova et al., 2020; Kayama & Yamakawa, 2020; Liu, 2019). For example, Dugarova et al. (2020) found that there were significant differences in the content and structure of self-identity between Mongolian and Russian adolescents.

The self can be viewed and established from two different perspectives. The individualist perspective considers how a person differentiates and distinguishes themselves from others. However, one may also consider how they share similarities and connection through relationships (collectivist perspective; Cohen & Gunz, 2002; Ownsworth, 2014). Empirical studies have shown that Chinese people placed more emphasis on their relational and collective selves, on their identity as a member of their nation, and also prefer to maintain and enhance their collective self-esteem (Ma et al., 2016; Zheng et al., 2017; Zheng et al., 2018). For example, student YJB was very proud to say, “I think China is a country that has done a great job in many ways, ... (I want to) maintain this high sense of identity with my country.”

Both the relational and collective selves essentially reflected self-other relationships. The self-other relationships of Chinese college students with internet addiction, although generally poor, were developed through a dynamic process. For example, one student described her parent-child relationship as follows: “Before my younger siblings were born, they (my parents) surrounded me and cared for me. But after they (younger siblings) were born, I was ignored by my parents.” One of the important reasons for the subjects’ overall poor self-other relationship may be internet addiction. One student said, “After I started university, apart from completing the homework from my professors, I have been watching various dramas, such as Empresses in the Palace. I would watch it again after already watching it two or three times. And then I would view TikTok and play games and so on.” As another example, “When I was 12 years old, my father died in a car accident, which was a great blow to us. I miss my father every day and have no mind to study. I paralyze myself with games and my grades drop sharply. Until now, online chat and online games have become the main content of my life. To tell you the truth, I have few friends and am very lonely.” Taken together, these two examples were consistent with the results of existing studies where internet addiction significantly and negatively affected individuals’ interpersonal relationships, and the quality of interpersonal relationships was significantly better for non-internet addicts than for internet addicts (Seo & Jeong, 2017; Zheng et al., 2012).

Internet addiction may also indirectly affect individual interpersonal relationships. For example, “When I play online games, I often lose my temper because of small things. In that case, I have a strong sense of winning and losing. If I lose, I will be very angry, and then I will bring this emotion to real life and vent my anger on others. This makes my relationship with my parents worse and worse, and my friends less and less.”
Under-recognized Student Roles

The second most frequently mentioned aspect of the respondents’ self-identity was the student role, which included three sub-themes: students who lacked the motivation to learn, students who lacked professional interest, and students who were averse to learning. Seven people, nearly half the participants, identified the student role as an important component of their self-identity. Of these seven students, six had low recognition of their student role. For example, a girl who was particularly fond of playing online games said, “I never did too well in my studies until my senior year in high school, and I sometimes even wondered if I was good at studying.”

Self-identity, as a theme of certain long-term social practices, reflects the direction, nature, and intensity of social interactions (Vygotsky, 2016). Role identity describes the extent to which individuals recognize the social roles they play (Li et al., 2018). Objectively, all seven respondents in this study identified their primary roles as students. As they stated, “I am a college student; I am a student majoring in special education; I am a student majoring in preschool education,” and so on. This confirmed Chickering’s (1971) view that self-identity should include a clear role orientation. However, they did not subjectively recognize their identity as students. One student said, “I can quite directly say that I didn’t really want to study since I was little.”

The autobiographical stories of the seven interviewees who mentioned their role as students showed that six had a consistently poor academic performance. For example, one student described her academic performance in detail: “When I was in the first grade, my grades were particularly bad, the bottom of the class. By sixth grade, my dad realized that my poor grades were a very serious problem. My grades were not particularly good in my second year in junior high. During my first year in high school, I didn’t study very hard and was at the bottom of the class among all arts students. I failed a lot in college.”

When talking about why her academic performance has been poor, she summed it up as follows: “In the fourth grade, I started to solve the Rubik’s Cube, then I played mobile games whenever I had a chance. Then I especially liked to play online games, and I was addicted to it. Until now, I am not in a very good state, and I always feel like there is no expectation.” Another example, “In primary school, I didn’t want to attend classes or do my homework. I also dealt with it casually during the exam. At home, I played games frequently. From junior high school until now, I especially like playing online games. My college grades have not been very good, which may be related to my special love of playing online games.” Thus, internet addiction resulted in poor academic performance which contributed to the low recognition of their role as students among internet-addicted college students (Chavira, 2006).

Multiple Negative Personality Traits

Eight respondents identified personality traits as an important part of their self-identity, with six of them presenting negative personality traits. Student ZSY spoke of not being diligent: “I have put off taking the Guzheng exam till now. I have put it off for three or four years.” A few students specifically mentioned a lack of confidence. For example, student ZZJ said, “I feel that I am not in good shape, I am not good looking,
and I have a bad personality...” It gave the impression that she felt bad about everything about herself.

China vigorously promoted the construction of the core values of socialism and took important personality traits, such as honesty and friendliness as the basic moral code for citizens (Li, 2019), which laid a solid foundation for the cultivation of healthy personalities (Sun et al., 2015). Therefore, college students tended to treat personality traits as essential components of the ego. This was consistent with the identity capital model (ICM), which argues that personality traits are intangible capital (Côté, 1997). According to Chickering (1971), self-identity includes but is not limited to the stability and integrity of personality.

However, the personality traits revealed by the interviewees were generally negative. One student described it as follows: “I am a slow starter, ... there is a contradiction about slow starters.” ZZJ described their feelings after breaking up in college as follows: “From that time on, I began to doubt myself all the time. I felt I was particularly ugly and doubted myself every day.” Clearly, this description revealed a strong sense of low self-esteem.

An important reason for their lack of confidence or low self-esteem may lie in their unfortunate upbringing. First, they lacked parent companionship and love for a long time. As one student mentioned: “When I was a child, I was brought up by others because I was a girl and our countryside was patriarchal. I was very unhappy at my adoptive parents’ house. Somehow I became addicted to games. The Internet makes me have many friends who play games together, but in real life, I am lonely and inferior.” Lacking parental love made children feel unimportant as if they have been abandoned. By the second or third year in high school, they were still not recognized by their parents and felt even more insignificant. Another student put it this way: “My dad was more of a mahjong player back then, and he didn’t really bother with me much after I was born.” Research has found that students who did not receive the company and encouragement from their parents for long periods of time lacked self-confidence (Suman & Ballhara, 2018). Second, excessive frustrating experiences during their early years also had a negative impact. Some students experienced frustration since kindergarten. For example, one student recalled: “I heard from my kindergarten teacher that I cried every day in kindergarten and was in a bad mood every day. I think it had a lot to do with my dad.” Other students experienced different frustrations at different stages of their developmental lifespan, such as academic setbacks, discordant parent-child relationship, and breakups from romantic relationships. Some frustrations were persistent, such as consistently poor academic performance. A study by Raknes et al. (2017) showed that negative life events such as academic setbacks and breakups significantly reduced adolescents’ self-efficacy and severely destroyed their self-confidence.

Unclear Self-Concept

When completing the first task, five of the respondents represented themselves by their names as one of the important roles they identified with. For example, “I am ×× Feng; I am ×× Zheng; I am ×× Zou.”
Self-concept is the conceptualization and abstraction of self-knowledge based on self-knowledge and self-image, and is a conceptual expression of the ego (Xu, 2013). In the subject’s answer “I am ××,” the “××” was not a conceptual expression, but only a reference to themselves. Moreover, given that self-identity orientates social roles, “××” did not represent a social role per se (Batra et al., 2016), since social roles embodied behavioral expectations of people with specific identities (e.g., student, teacher, father, athlete, and writer). Thus, the responses “I am ××” seemed to be unrelated to self-concept and self-identity. However, this is not necessarily the case when we look at their autobiographical stories related to their names. Four students used their names to refer to themselves, which included their physical self (e.g., ugly, fat), social self (e.g., president of the literature club), and emotional self (e.g., mood swings). One student described the origin of her name and how she changed from resistance to acceptance of her name. She said, “When I was a child, I didn’t like my name very much, so I rebelled against my parents and wanted them to change it for me. Then (when I grew up) I thought, ‘Names are lives, and life is brought to you by your parents, and so was the name. Then (I) slowly accepted the name.’” According to the multidimensional and multilevel theoretical model of self-concept (Shavelson et al., 1976), the non-academic self-concept included social, emotional, and physical aspects. Clearly, the autobiographical stories of the above five students all pointed to the non-academic self-concepts.

It can be seen that, as a cultural phenomenon specific to human society (Chen, 2014), names were not only used as a reference to the students, but also to describe characteristics. It can even be said that names were their personalities (Na et al., 2014). For internet-addicted college students, their names were psychologically equivalent to their self-concepts. A study about Korean American adoptees found that name change led to changes in their self-concept and self-identity (Reynolds et al., 2020). However, the self-concept of internet-addicted college students was cluttered, lacked organization and covered too much content. Their self-concept was unclear as a clear self-concept consists of highly organized information about the self (Niu et al., 2016) that reflects a stable and coherent psychological structure (Guerrettaz et al., 2014). The self-concept fragmentation hypothesis of the internet argues that the internet may put individuals at risk of failing to unify their various self-explorations and even disintegrate existing stable selves, bringing about a confusion of their self-concepts (Valkenburg & Peter, 2011). Thus, it can be preliminarily assumed that one’s name, when used in the sense described above, can be taken as an appropriate answer to the question “Who am I?” Whether this is true in reflecting one’s self-identity requires further tests by more research.

**Study Limitations and Future Directions**

First, this study preliminarily explored the content and characteristics of self-identity of internet-addicted college students in the Chinese cultural context. The novel findings, compared to the results of existing studies (Malakhovskaya & Dyakov, 2018), was namely that in a particular cultural context, one’s name may be an appropriate
answer to the question “Who am I?” as a reflection of self-identity. However, this requires testing by future research.

Second, according to Pope et al. (2007), the flexibility of thematic analysis hindered transparency because “it can be difficult for readers to determine how and at what stage themes are identified.” In addition, data in qualitative research is usually generated through language. However, individuals may not always fully understand or be able to comprehensively articulate their experiences through language (Polkinghorne, 2005). This may have been the case with the participants in this study when they were asked to describe their current or recent experiences. They may not have the time to digest and process their experiences fully, before sharing with the interviewer.

Third, a purposive sample of respondents was collected. College students were invited to participate in this study if they met the inclusion criteria and were stable enough to participate in the interviews. However, these students represented a minority group and did not reflect the target population of this study. In addition, the sample was fairly homogeneous in terms of gender. The themes identified were more likely to reflect the content and characteristics of girls’ self-identity than those of boys. Therefore, it would also be beneficial to include more boys in future studies to reveal any potential gender differences.

Fourth, there is no control group for comparison and not enough exploration with regards to the internal and subjective experiences of participants. In the future, we should compare differences in self-identity between addicted and non-addicted college students and thoroughly explore their internal and subjective experiences in a narrative way.

Finally, social expectancy bias may have influenced the results of this study. Social expectancy bias may have led participants to share only favorable information they believed the researcher or interviewer wanted to hear or receive (Wolford et al., 2020). For example, when talking about discordant parent-child relationships, interviewees may have recounted only trivial matters and omitted instances that could seriously affect their self-image. Due to a nominal student-teacher relationship between the interviewer and the interviewee in this study (i.e., both were in the same secondary college, but the interviewer has not taught any courses to the interviewee), the negative results brought by social expectation bias might have been exacerbated. Future research should minimize this bias by selecting stranger interviewees or changing interviewers.

**Conclusion**

The self-identity of Chinese college students with internet addiction included four themes: complex and discordant self-other relationships, under-recognized student roles, multiple negative personality traits, and an unclear self-concept. All 15 respondents identified self-other relationships as one of the most important self-components. Specifically, parent-child relationships was the most important sub-theme, mentioned by more than half of the respondents. The self-identity of internet-addicted college students was generally characterized by a negative emotional tone, and the themes covered were
similar to those of the general population, except for “unclear self-concept.” One’s name may be an appropriate answer to the question of “Who am I?” in reflecting self-identity, but more research is needed to verify this. In conclusion, the content and composition of the self-identity of Chinese college students with internet addiction was similar to that of the general population, except that the theme had a negative tone.

AUTHOR’S CONTRIBUTION

M.H. conceptualized and drafted the article. J.Z., D.G.D. and S.L. revised it critically for important intellectual content. All authors gave final approval of the version to be published.

CONFLICT OF INTEREST

The authors declare no potential conflict of interest with respect to the research, authorship, and publication of this article.

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doi.org/10.1080/21662630.2013.794525


*(Manuscript received 10 November, 2021; Revision accepted 15 July, 2022; Released online in J-STAGE as advance publication 20 October, 2022)*