

## The Hidden Costs of Negative Workplace Gossip

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**The Hidden Costs of Negative Workplace Gossip: Its Effect on Targets' Behaviors, the Mediating Role of *Guanxi* Closeness, and the Moderating Effect of Need for Affiliation**

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1 **Abstract**

2 This research explores the harmful effects of negative workplace gossip (NWG) on targets and  
3 organizations, including its impacts on helping behavior and knowledge hiding. The mediating  
4 role of *guanxi* closeness and the moderating role of need for affiliation are also examined. The  
5 study, based on conservation of resources theory, collected data from 526 employees in the  
6 hospitality industry in China, using a three-wave survey design. Hierarchical multiple  
7 regression analysis was employed to test the hypotheses. The empirical results showed that  
8 NWG was a strong predictor of reduced helping behavior and increased knowledge hiding; and  
9 that *guanxi* closeness mediated both the negative relationship between NWG and helping  
10 behavior, and the positive relationship between NWG and knowledge hiding. Additionally,  
11 need for affiliation was shown to act as a moderator between NWG and *guanxi* closeness: high  
12 need for affiliation amplified the negative impact of NWG on *guanxi* closeness, and then  
13 further affected employees' helping behavior and knowledge hiding. This study therefore offers  
14 an important new perspective for interpreting the detrimental effects of negative gossip in  
15 organizations, providing not just theoretical advances but practical ways in which managers  
16 can proactively reduce these impacts.

17  
18 **Keywords:** Negative workplace gossip, *guanxi* closeness, helping behavior, knowledge hiding,  
19 need for affiliation

## 20 **1 Introduction**

21 Gossip is a natural and common social phenomenon whose importance as a research topic has  
22 been recognized by many scholars (e.g., Babalola et al. 2019; Chandra and Robinson 2010;  
23 Cheng et al. 2020; Dunbar 2004; Foster 2004; Kniffin and Wilson 2010; Kong 2018; Kuo et al.  
24 2015; Wu, Kwan et al. 2018). Hearing and spreading gossip, whether wittingly or unwittingly,  
25 is a normal part of daily life for many people; it is also common for individuals to become the  
26 subject of gossip (Cheng et al. 2020; Dunbar 2004). Studies have shown that people spend 65%  
27 of their conversational time discussing social topics, and that up to two-thirds of their  
28 conversations are about third parties (Emler 1994). Gossip in the specific setting of the  
29 workplace has also been widely explored, leading to its recognition as an important means by  
30 which employees gather and exchange information and satisfy their social needs (Beersma and  
31 Van Kleef 2012; Brady et al. 2017; Kniffin and Wilson 2010; Kuo et al. 2015; Mills 2010), as  
32 a self-enhancement strategy, and as a form of social control within groups (McAndrew and  
33 Milenkovic 2002; McAndrew et al. 2007). Gossip has also been shown to be important for the  
34 survival of organizations (Kniffin and Wilson 2005), for example by discouraging selfishness  
35 and promoting cooperation (Feinberg et al. 2012; Feinberg et al. 2014).

36 However, alongside these positive consequences of certain forms of workplace gossip, the  
37 potential harms of negative workplace gossip (NWG) cannot be overlooked, since they can  
38 include many undesirable consequences for both targets and organizations (Chandra and  
39 Robinson 2010). NWG is defined as negative, informal, and evaluative talk about the personal  
40 information of an organizational member or the spreading of rumors behind their back  
41 (Chandra and Robinson 2010; Kong 2018; Wu, Birtch et al. 2018; Wu, Kwan et al. 2018).

42 Many studies have explored its consequences from the perspective of the targets (Babalola et  
43 al. 2019; Cheng et al. 2020; Tian et al. 2019; Wu, Birtch et al. 2018; Wu, Kwan et al. 2018; Ye,  
44 Zhu et al. 2019). Because it contains sensitive personal information, NWG can damage targets'  
45 reputation (Lee and Barnes 2021) and invade their personal privacy (Foster 2004). Its other  
46 negative impacts include harming targets' emotional wellbeing (e.g., triggering emotional  
47 exhaustion, Liu et al. 2020; Wu, Kwan et al. 2018) and cognition (e.g., causing employee  
48 cynicism, Kuo et al. 2015), as well as decreasing perceived insider status (Kong 2018),  
49 organization-based self-esteem (Kong 2018), and organizational identification (Ye, Zhu et al.  
50 2019). Its multiple behavioral impacts include reducing proactive behavior (Wu, Kwan et al.  
51 2018), in-role behavior (Babalola et al. 2019; Kong 2018; Ye, Zhu et al. 2019), organizational  
52 citizenship behavior (Kong 2018), and customer-oriented organizational citizenship behavior  
53 (Ye, Zhu et al. 2019). It has also been shown to negatively affect ability, for example by  
54 decreasing creativity (Liu et al. 2020). Furthermore, targets of NWG may tend to adopt political  
55 acts, which are a form of a self-serving behavior (Cheng et al. 2020). In addition, NWG causes  
56 negative impacts on the organization by reducing targets' job performance (Lee, Chou et al.  
57 2016).

58 Despite this large number of studies, the literature still has some limitations. Firstly, the  
59 research on NWG's effects on employees' behaviors is not comprehensive. Prior studies have  
60 focused on how the targets of NWG carry out their jobs and work tasks, for example exploring  
61 changes in organizational citizenship behavior (Kong 2018; Ye, Zhu et al. 2019) and self-  
62 serving behavior (Cheng et al. 2020). However, the literature has overlooked behaviors in  
63 another important area of workplace life: interpersonal interactions among colleagues. This is

64 an extremely important and valuable area of study that is worthy of urgent academic attention,  
65 since the workplace is a sphere where employees communicate and interact with each other in  
66 order to make work progress smoothly (Ye, Lyu et al. 2019). Positive interactions not only  
67 facilitate the successful completion of existing tasks, but also lay the groundwork for dealing  
68 effectively with future challenges (Raub and Liao 2012); by contrast, ineffective or negative  
69 interactions can adversely affect both individuals and organizations (Zhu et al. 2017). Typical  
70 positive workplace interactions include helping behavior and knowledge sharing, both of which  
71 provide effective solutions to challenges, improving the way employees carry out their work  
72 and thus enhancing customer satisfaction and organizational performance (Lee, Foo et al. 2016;  
73 Mahdi et al. 2019; Mossholder et al. 2011; Podsakoff et al. 2000). Helping behavior, a powerful  
74 indicator of group and organizational performance, is essential in dealing with non-routine  
75 aspects of work in an organization (Mossholder et al. 2011; Podsakoff et al. 2000). Knowledge  
76 sharing also delivers numerous benefits to individuals and the organization (Pandey et al. 2021);  
77 however, if employees intentionally fail to share knowledge for some reason, this hinders the  
78 creativity and innovative behavior of the organization's members, inhibits the performance of  
79 new product project teams (Černe et al. 2017; Fong et al. 2018; Yao et al. 2020; Zhang and Min  
80 2019), and reduces competitive advantage (Connelly et al. 2019; Hernaus et al. 2019; Malik et  
81 al. 2019). Deliberately hiding knowledge is therefore harmful to creativity at the individual and  
82 team level, and to long-term organizational development (Pandey et al. 2021). Consequently,  
83 given the importance of helping behavior and the significant adverse effects of knowledge  
84 hiding, this study explores whether and how they are affected by NWG.

85 Secondly, existing studies have not paid enough attention to the role of personal

86 connections in the relationship between NWG and targets' behaviors. For example, the Chinese  
87 concept of *guanxi* is defined as "an informal, particularistic personal connection between two  
88 individuals who are bounded by an implicit psychological contract to follow the social norm  
89 of *guanxi* such as maintaining a long-term relationship, mutual commitment, loyalty, and  
90 obligation" (Chen and Chen 2004, p. 306). This study focuses not on *guanxi* itself, but on  
91 *guanxi* closeness, which differs from *guanxi* in that it is an indicator of *guanxi* status at a  
92 specific point in time (Chen and Chen 2004; Chen et al. 2013). *Guanxi* closeness comprises  
93 two components: trust and feelings (Chen and Chen 2004). Positive behavioral events enhance  
94 the closeness of coworker relationships, while negative ones weaken it (Chen and Peng 2008).  
95 Since NWG implies the exclusion of targets, it may negatively affect their interpersonal  
96 connections (Cheng et al. 2020; Dunbar 2004; Foster 2004; Kniffin and Wilson 2010; Wu,  
97 Kwan et al. 2018), particularly in cultures, such as Chinese society, in which interpersonal  
98 bonds are highly valued, and people believe that connections and relationships play a very  
99 important role in their daily life and work. Therefore, this study tests, in the Chinese context,  
100 how NWG influences employees' *guanxi* closeness, consequently causing even greater impacts  
101 on their helping behavior and knowledge hiding.

102 Thirdly, there is an urgent need for more light to be shed on the moderators of NWG.  
103 Existing studies have shown that perceptions of NWG are partly driven by targets' personal  
104 traits and characters (Babalola et al. 2019; Cheng et al. 2020; Wu, Kwan et al. 2018; Ye, Zhu  
105 et al. 2019), such as traditionality (Wu, Kwan et al. 2018), hostile attribution bias (Kong 2018;  
106 Ye, Zhu et al. 2019), and moral disengagement (Cheng et al. 2020). Moreover, individuals'  
107 desire for social contact or belongingness (i.e., need for affiliation) may have certain effects on

108 their perception of the degree of NWG's impact. Need for affiliation expresses an individual's  
109 degree of desire to work with team members, including elements such as perception,  
110 cooperation, recognition, and communication (Steers and Braunstein 1976). Individuals with a  
111 high need for affiliation are more sensitive to and accurate in identifying and interpreting social  
112 cues, especially when these are negative (Weinberger et al. 2010; Kong et al. 2017). Hence, if  
113 targeted by NWG, which places them at a personal or political disadvantage (Robinson and  
114 Bennett 1995; Wu, Kwan et al. 2018), these employees are more likely than others to perceive  
115 the gossip and to respond more strongly, lowering their *guanxi* closeness more significantly.  
116 Therefore, it is important to understand whether need for affiliation plays a moderating role in  
117 the relationship between NWG and *guanxi* closeness.

118 Finally, while the NWG literature involves various research settings, few studies have  
119 focused on the hospitality industry (Ye, Zhu et al. 2019). Hospitality employees interact with  
120 customers every day. If they are targeted by NWG, the consequences may extend to the  
121 customers, i.e., outside the organization, causing even more damage. Moreover, frontline  
122 employees must constantly solve unconventional and tricky problems as they deal with  
123 customers' individual needs (Raub and Liao 2012), making interactions among colleagues  
124 particularly relevant (Mossholder et al. 2011). This study therefore pays much-needed attention  
125 to NWG in the hospitality context.

126 Given the research gaps that have been identified, this study proposes a theoretical model  
127 based on conservation of resources (COR) theory to explore the significant questions of how  
128 and when NWG influences interactions among colleagues in the hospitality industry.  
129 Specifically, the integrated conceptual model includes *guanxi* closeness as a mediator between



130 NWG and interactions among colleagues, and need for affiliation as a moderator in the  
131 relationship between NWG and *guanxi* closeness. This framework is shown in Figure 1.

132 **[Fig. 1 near here]**

## 133 **2 Theory and Hypotheses**

### 134 ***2.1 Conservation of Resources Theory***

135 Conservation of resources theory is a branch of stress research that is based on the assumption  
136 that individuals actively strive to maintain, protect, and build what they perceive to be valuable  
137 resources whose potential or actual loss is a threat to them (Hobfoll 1989). In recent years,  
138 COR theory has received increasing attention from scholars, and has been widely used to  
139 explain the effects of stressful situations including abusive supervision (Feng and Wang 2019;  
140 Harris et al. 2007; Xu et al. 2015), workplace ostracism (Xia et al. 2019; Zhu et al. 2017),  
141 customer incivility (Cheng et al. 2020), and family incivility (Cheng et al. 2021, Cheng et al.  
142 2019; De Clercq et al. 2018). These stressors deplete employees' valuable resources and place  
143 them in a state of resource deprivation, which in turn causes emotional, cognitive, attitudinal,  
144 and behavioral changes (Hobfoll 1989, 2001). NWG, as a negative workplace event, can also  
145 cause employees to be stressed and drain their resources, including time, energy, emotion  
146 (Halbesleben et al. 2014; Hobfoll 1989, 2001; Penney et al. 2011; Wu, Birtch et al. 2018; Wu,  
147 Kwan et al. 2018; Ye, Zhu et al. 2019).

148 In COR theory, resources include anything that individuals consider valuable and capable  
149 of helping them achieve their goals, such as material resources, conditional resources (e.g.,  
150 status in the organization), personality traits (e.g., self-esteem), and energy resources (e.g., time)

151 (Hobfoll 1989). Resources incorporate not only elements that meet individuals' needs, but also  
152 those that help them accurately identify themselves and position themselves socially. As a result,  
153 some researchers have adopted a COR perspective when considering the role of interpersonal  
154 relationships such as leader-member exchange (Dong et al. 2020; Harris et al. 2011), since the  
155 supervisor-subordinate relationship is a major source of support for accumulating,  
156 supplementing, and protecting resources. Following this line of thought, the present study  
157 considers workplace *guanxi* as a resource, arguing that *guanxi* closeness may play a role  
158 between NWG and interactions among colleagues in terms of increasing or expending  
159 resources.

## 160 **2.2 The Nature of NWG**

161 NWG refers to the discussion of a co-worker's personal information or the spreading of rumors,  
162 behind their backs (Chandra and Robinson 2010). It is a subcategory of workplace gossip,  
163 which refers to informal, evaluative conversations about an absent party in the workplace  
164 (Kurland and Pelled 2000; Wu, Birtch et al. 2018). NWG shares many of the characteristics of  
165 workplace gossip, for example operating as a relational or group process rather than a simple  
166 sender-receiver dyad (DiFonzo and Bordia 2007; Dunbar 2004; Ellwardt et al. 2012; Foster  
167 2004; Grosser et al. 2010; Wu, Birtch et al. 2018), since the process includes at least three  
168 subjects: gossips, receivers, and targets. Moreover, workplace gossip occurs naturally, requires  
169 a shared frame of reference and privacy protection between the gossips and receivers  
170 (Michelson et al. 2010), and is informal and unconstrained (Kurland and Pelled 2000; Wu,  
171 Birtch et al. 2018; Wu, Kwan et al. 2018; Ye, Zhu et al. 2019). Other similarities include its  
172 verbal and covert nature, and the fact that it is spread when the subjects are not present, meaning

173 that, although targets can perceive its existence, they struggle to identify the source or discover  
174 the content.

175         Alongside these similarities between workplace gossip and NWG, clear differences also  
176 exist. The biggest of these is that NWG contains negative private and sensitive information  
177 (Foster 2004; Kuo et al. 2015; Kurland and Pelled 2000), which may be exaggerated and even  
178 fabricated (Bok 1989; Dunbar 2004; Foster 2004; Kuo et al. 2015; Kurland and Pelled 2000).  
179 NWG can cause real psychological harm to the targets, such as eliciting a negative mood, and  
180 can damage interpersonal relationships (Babalola et al. 2019; Wu, Kwan et al. 2018).  
181 Furthermore, NWG is a unique social psychological construct that differs from other types of  
182 social mistreatment (Wu, Birtch et al. 2018), for example abusive or aggressive behaviors that  
183 contain both overt and covert social mistreatment (Duffy et al. 2002; Wu, Birtch et al. 2018).  
184 It is regarded as an indirect attack involving aggression (Beersma and Van Kleef 2012) or  
185 victimization (Ellwardt et al. 2012). These features of NWG tend to preclude confrontation and  
186 generate greater uncertainty (Wu, Birtch et al. 2018).

### 187 ***2.3 NWG and Interactions Among Colleagues***

188 NWG, as an unhealthy and hurtful experience, can exert significant effects on targets’  
189 interactions with colleagues (Kong 2018; Wu, Birtch et al. 2018). These interactive behaviors  
190 include helping behavior and knowledge hiding. Within organizations, helping behavior can  
191 promote cooperation and communication, as well as improving interpersonal relationships  
192 (Dalal and Sheng 2019). Knowledge hiding, by contrast, has a harmful nature that goes beyond  
193 simply not sharing knowledge (Ahmad and Karim 2019; Nguyen et al. 2019; Tang et al. 2015),  
194 and may have a negative impact on creativity for individuals (Černe et al. 2014) and teams

195 (Bogilović et al. 2017; Fong et al. 2018). Therefore, studying the impact of NWG on these two  
196 typical interactions among colleagues is of far-reaching significance.

197         Helping behavior is defined as a kind of discretionary and voluntary behavior in  
198 interpersonal communication (Mossholder et al. 2011; Podsakoff et al. 2000). For example,  
199 coaching new employees and assisting colleagues in order to share the workload can strengthen  
200 the bond between colleagues (Bowler and Brass 2006; Settoon and Mossholder 2002).  
201 Knowledge hiding – in which knowledge mainly refers to information, opinions, and  
202 professional experience related to work tasks – is defined as the choice by organizational  
203 members to conceal or withhold knowledge for some purpose when faced with a knowledge  
204 request by colleagues (Connelly et al. 2012). It is an intentional behavior whose motivation  
205 may be deceptive or protective (Huo et al. 2016). Possible antecedents of knowledge hiding  
206 include interpersonal conflicts such as distrust (Connelly et al. 2012), perceived knowledge  
207 ownership (Huo et al. 2016; He 2013), and workplace ostracism (Zhao et al. 2016).

208         In this study, we propose that NWG can lead to targets reducing their helping behavior  
209 and increasing their knowledge hiding. These behavioral changes may occur for several reasons.  
210 Firstly, being the target of NWG is an undesirable experience. False information and malicious  
211 content drain employees' energy, upset them, and leave them seeking the source of the gossip  
212 and trying to verify its content (Baumeister et al. 2004; Foster 2004; Kong 2018; Wert and  
213 Salovey 2004; Wu, Birtch et al. 2018; Wu, Kwan et al. 2018; Ye, Zhu et al. 2019). According  
214 to COR theory, targets may devote considerable resources such as time and energy to seeking  
215 information about the NWG, and may fall into a state of resource deprivation (Hobfoll 1989,  
216 2001). Moreover, despite investing resources in their search for the colleagues who initiated

217 and spread the NWG, targets cannot always succeed in identifying them (Chandra and  
218 Robinson 2010). As a consequence of the resources lost during this process, targets may tend  
219 to reduce behaviors that require extra resources, such as helping colleagues and sharing  
220 knowledge with them. Given this pattern of behavior, we focus on changes to targets' helping  
221 behavior and knowledge hiding, arguing that these are manifestations of their efforts to protect  
222 themselves from falling into a resource loss spiral after losing resources due to NWG.

223       Secondly, according to COR theory, individuals are always actively striving to maintain,  
224 protect, and make good use of their limited valuable resources (Hobfoll 1989; Hobfoll et al.  
225 2018). This means that when they suffer the loss of resources, they will be sensitive to this  
226 process and will tend to make efforts to preserve their remaining stocks (Cheng et al. 2020;  
227 Hobfoll 1989). When encountering NWG, targets will seek to maintain and even enhance their  
228 own competitiveness, because their exclusive knowledge and experience are resources that can  
229 help them achieve their goals (Burmeister et al. 2019; Fong et al. 2018; Yao et al. 2020). As a  
230 result, they will help others less, fail to pass on job-related skills to their coworkers, and hide  
231 their opinions and thoughts even when asked (Connelly et al. 2012; Mossholder et al. 2011).  
232 Therefore, both reducing helping behavior and engaging in knowledge hiding can help targets  
233 to conserve their remaining resources to cope with future losses.

234       Thirdly, the indirect, covert nature of gossip usually makes it impossible to confront the  
235 perpetrators and leaves targets prone to greater uncertainty (Wu, Birtch et al. 2018), since they  
236 do not know who is responsible. In this context, reducing helping behavior and increasing  
237 knowledge hiding become relatively safe ways to express dissatisfaction, as well as operating  
238 as a form of secret retaliation against the NWG.

239 On the basis of these points, we propose the following hypotheses:

240 **H1a: NWG is negatively related to helping behavior.**

241 **H1b: NWG is positively related to knowledge hiding.**

#### 242 ***2.4 The Mediating Role of Guanxi Closeness***

243 *Guanxi* closeness, which captures the quality of *guanxi* at a particular point in time,  
244 consists of trust and feelings, where trust is based on cognition and feelings are based on  
245 emotion (Chen et al. 2004, 2013; Chen and Peng 2008; Fu et al. 2006). Higher levels of trust  
246 and positive emotions indicate a closer relationship (Chen and Chen 2004; Chen and Peng  
247 2008). Higher *guanxi* closeness with colleagues means that employees can communicate and  
248 cooperate at work and receive support, understanding, and trust (Chen and Peng 2008). A  
249 higher degree of *guanxi* closeness indicates a higher level of relationship resources, which  
250 employees can use to complete their work tasks more efficiently (Chen et al. 2004; Chen and  
251 Peng 2008). By contrast, employees with a low degree of *guanxi* closeness with their  
252 colleagues may find it more difficult to accomplish job assignments, since they lack the help  
253 of others. Researchers suggest that *guanxi* closeness changes dynamically over time (Chen et  
254 al. 2004) under the influence of factors including prior closeness (Chen and Peng 2008),  
255 relationships with others (Chow and Ng 2004; Zhu et al. 2013), social interactions and  
256 exchanges outside work (Wong et al. 2003), and in particular personal experiences in the  
257 workplace, such as interpersonal incidents (Chen and Peng 2008).

258 As noted in the Introduction, it is important to distinguish *guanxi* closeness from *guanxi*  
259 itself. *Guanxi* is a concept, but not a measurable variable. *Guanxi* closeness, as a representation

260 of the state of *guanxi* at a particular time, is an operationalized notion of how many resources  
261 are available in the *guanxi* relationship. In China, both theory and practice support the  
262 classification of *guanxi* as a resource – a reality encapsulated by the traditional saying “More  
263 friends, more roads”. Researchers argue that *guanxi* is both instrumental and functional (Chen  
264 and Chen 2004). It can be regarded as a form of human or organizational capital that helps  
265 businesses gain a competitive advantage (Fan 2002; Luo et al. 2012), reduces transaction costs  
266 (Davies et al. 1995), or mobilizes political support (Hou and Zhu 2020). Because *guanxi* can  
267 help individuals achieve their work goals, it can also be seen as a resource from the COR  
268 perspective (Cheng et al. 2020; Halbesleben et al. 2014).

269 On the basis of the above discussion, the present study proposes that if employees are  
270 targeted by NWG, their *guanxi* closeness with colleagues will decrease. There are at least two  
271 reasons for this process. Firstly, NWG signals that the targets are unwelcome and excluded by  
272 their colleagues. For example, conversations may stop abruptly when the targets approach, or  
273 coworkers may deliberately avoid eye contact with them (Beersma and Van Kleef 2012; Foster  
274 2004; Wu, Kwan et al. 2018). The targets’ feeling of being ‘out of the loop’ or ‘frozen out’  
275 hinders them from maintaining close personal relationships (O’Fallon and Butterfield 2011).  
276 As they perceive this abnormal and embarrassing atmosphere, they tend to avoid other  
277 colleagues. This process consumes their relationship resources, thereby reducing their *guanxi*  
278 closeness. Secondly, because of the invisibility of NWG, targets cannot identify the source of  
279 the gossip (Chandra and Robinson 2010). However, it is human nature to try to find out its  
280 source and content (Leary et al. 1995; Ye, Zhu et al. 2019). As targets devote their resources to  
281 identifying the perpetrator and correcting the untrue content, their trust in and positive feelings

282 towards their colleagues are diminished: in other words, their *guanxi* closeness decreases  
283 (Kong 2018).

284 The reduction of *guanxi* closeness caused by NWG will further decrease targets' helping  
285 behavior and increase their knowledge-hiding behavior. COR theory points out that individuals  
286 lacking resources have difficulty in handling daily life (Hobfoll 1989, 2001; Wu, Kwan et al.  
287 2018). Decreased *guanxi* closeness results in targets' subjective unwillingness (i.e., lack of  
288 sufficient psychological and relationship resources) or objective inability (i.e., limited energy  
289 or time) to complete extra actions. Targets with less *guanxi* closeness may feel they have no  
290 reason to help colleagues or share knowledge with them, and as a result reduce their voluntary  
291 helping behavior and increase knowledge hiding (Halbesleben and Bowler 2007; Wu, Kwan et  
292 al. 2018). We therefore propose:

293 **H2a: *Guanxi* closeness mediates the negative effect of NWG on helping behavior.**

294 **H2b: *Guanxi* closeness mediates the positive effect of NWG on knowledge hiding.**

## 295 ***2.5 The Moderating Role of Need for Affiliation***

296 Prior research has shown that the negative impact of NWG depends on the targets' subjective  
297 perceptions (Babalola et al. 2019; Cheng et al. 2020; Wu, Kwan et al. 2018; Ye, Zhu et al. 2019).  
298 Indeed, NWG relates to an individual's perception that someone is spreading rumors about  
299 them, making false accusations against them, or communicating destructive information to  
300 others (Chandra and Robinson 2010). Thus, we propose that differences in individuals' need  
301 for affiliation will lead to varying degrees of NWG's impact on *guanxi* closeness.

302 Need for affiliation refers to individuals' desire for social contact or belongingness (Veroff



303 and Veroff 2016; Wiesenfeld et al. 2001; Zhu et al. 2017). The need for social contact is a basic  
304 human motivation, and includes seeking and enjoying relationships with others (Deci and Ryan  
305 2008; Van Rompay et al. 2012). Furthermore, a higher degree of need for affiliation represents  
306 a stronger inclination to communicate and gain social gratification from harmonious  
307 interpersonal communication (Deci and Ryan 2008; Wiesenfeld et al. 2001). By contrast,  
308 individuals with a lower degree of need for affiliation feel more independent and care less about  
309 belongingness (Markus and Kitayama 1991; Wiesenfeld et al. 2001; Zhu et al. 2017).

310 In line with COR theory, this study proposes that need for affiliation can moderate the  
311 relationship between NWG and *guanxi* closeness. Several reasons lie behind this suggestion.  
312 Firstly, employees with a high need for affiliation value interdependence. Individuals have  
313 different perceptions of whether they are independent or interdependent, i.e., separate from or  
314 connected to others (Markus and Kitayama 1991; Wiesenfeld et al. 2001). Individuals with a  
315 high need for affiliation tend to perceive themselves as interdependent, to intrinsically value  
316 group membership, and to expect social rewards from harmonious relationships (O’Fallon and  
317 Butterfield 2011; Wiesenfeld et al. 2001). Since these employees are more sensitive and  
318 accurate in identifying and interpreting social cues, especially negative ones (Weinberger et al.  
319 2010; Kong et al. 2017), they are also more likely to sense an abnormal atmosphere and  
320 perceive the existence of NWG. Compared to individuals with low affiliation needs, they value  
321 social connection and the sense of belonging more; and since NWG hinders the fulfilment of  
322 their needs to a greater extent, it may produce more negative responses, making it easier for  
323 them to get caught in the spiral of resource loss (Halbesleben et al. 2014; Hobfoll 1989, 2001;  
324 Wu, Kwan et al. 2018). In this way, NWG may lead to more harm to these targets and cause

325 greater resource consumption (Kong 2018).

326 Secondly, due to their emphasis on harmonious relationships, employees with a high need  
327 for affiliation may divert resources away from their work and towards coping with NWG and  
328 gaining support in the workplace. COR theory suggests that individuals need to replenish their  
329 resource pool once they have suffered a loss (Hobfoll 1989, 2001). Support resources from the  
330 organization, colleagues, and supervisors are especially important for employees with a high  
331 need for affiliation. However, it is hard for the targets of NWG to get support resources from  
332 their colleagues to replenish their resources pool, because the gossip itself means they are out  
333 of the loop (O'Fallon and Butterfield 2011). The more that targets try to invoke existing  
334 resources to acquire new ones, the more they will lose, and the more disappointed they will  
335 become in their relationships with other coworkers. Therefore, their *guanxi* closeness decreases  
336 more. On the contrary, low need for affiliation allows targets to focus more on themselves and  
337 self-regulation for resource supplementation, rather than relying on social interaction with  
338 other members of the organization. They may see themselves as separate from others, have less  
339 of an inherent need to belong, and may not feel the same benefits from warm relationships and  
340 team membership (Zhu et al. 2017). As a result, their resource loss is lower, and their *guanxi*  
341 closeness declines by a lower degree. The following hypothesis is therefore proposed:

342 **H3: Need for affiliation moderates the negative relationship between NWG and**  
343 ***guanxi* closeness, such that the relationship is stronger when employees' need for**  
344 **affiliation is high.**

345 Based on the above arguments, we propose an integrated model in which *guanxi* closeness

346 mediates the impact of NWG on helping behavior and knowledge hiding, and need for  
347 affiliation moderates the relationship between NWG and *guanxi* closeness. Combining  
348 hypotheses 2a, 2b, and 3, we further suggest that the indirect effect of NWG on helping  
349 behavior and knowledge hiding will be stronger when employees' need for affiliation is high,  
350 because when they suffer NWG, they are more likely to get caught in a spiral of resource loss  
351 and find it harder to replenish their resources. We therefore propose:

352 **H4a: Need for affiliation moderates the indirect effect of NWG on helping behavior**  
353 **through *guanxi* closeness, such that this indirect relationship is stronger for**  
354 **employees with a high need for affiliation.**

355 **H4b: Need for affiliation moderates the indirect effect of NWG on knowledge hiding**  
356 **through *guanxi* closeness, such that this indirect relationship is stronger for**  
357 **employees with a high need for affiliation.**

### 358 **3 Method**

#### 359 ***3.1 Sample and Procedures***

360 The data for this study was collected using a three-wave survey method in 15 companies in the  
361 hospitality industry, all located in the major Chinese cities of Guangzhou and Shenzhen. Using  
362 samples from Eastern developing countries is very beneficial for diversity, given the prevalence  
363 of research based on samples that could be categorized as 'WEIRD' (Western, Educated,  
364 Industrialized, Rich, Democratic), even though the majority of the world's population does not  
365 fall into this category (Henrich et al. 2010). The three-wave method, with a one-month interval  
366 between stages, was used to minimize the risk of common method variance (CMV) (Podsakoff

367 et al. 2003). In the first wave (T1), respondents provided their demographic information and  
368 their perceptions of NWG, as well an assessment of their need for affiliation. One month later  
369 (T2), the information on *guanxi* closeness was collected from participants who had completed  
370 the first questionnaire. After another month had elapsed (T3), those who had responded to both  
371 the T1 and T2 surveys reported their knowledge-hiding behavior, and their immediate  
372 supervisors were contacted to evaluate the respondents' helping behavior. A coding system was  
373 applied to make sure that the data collected in all three stages was from the same respondents.

374 The participants were selected with the cooperation of the heads of the companies who  
375 permitted the use of their staff lists for this purpose. A total of 1,050 employees was randomly  
376 selected to be invited to take part. In the three stages of the survey, responses were received  
377 from 846, 667, and 526 people, respectively, representing response rates of 80.6%, 78.8%, and  
378 78.9%, respectively. Of the 526 questionnaires completed in the third and final stage, 62.7%  
379 were from female respondents. In terms of age, 17.5% of these third-stage respondents were  
380 aged 18-23, 29.5% were 24-29, 21.5% were 30-35, 17.5% were 36-41, and 14.0% were 42 and  
381 older. Regarding education, 66.3% of this group held a junior or high school degree, 25.9% a  
382 junior college degree, and 7.8% a bachelor's degree or above. The length of tenure was one  
383 year or less for 26.6% of the participants, two to three years for 41.6%, three to five years for  
384 13.2%, and five years or more for 18.6%. Earnings were 500 dollars or less per month for 17.7%  
385 of the group, 500 to 700 dollars for 42.0%, 700 to 900 dollars for 23.0%, and 900 dollars or  
386 more for 17.3%.

### 387 **3.2 Measures**

388 The study used English language scales, which were translated into Chinese using a common

389 back-translation procedure (Brislin 1970). A five-point Likert-type scale was used, with scores  
390 ranging from 1 (strongly disagree) to 5 (strongly agree). The following paragraphs describe the  
391 details of each scale.

392 **NWG:** Chandra and Robinson's (2010) three-item scale was adopted, with sample items  
393 including “As recently as one month ago, others have communicated damaging information  
394 about me to others”. This scale has been widely used in the Chinese context in previous studies  
395 (Cheng et al. 2020; Wu, Birtch et al. 2018; Wu, Kwan et al. 2018; Ye, Zhu et al. 2019). The  
396 Cronbach's alpha value for this scale was .87.

397 **Guanxi closeness:** The study used a nine-item scale developed by Chen and Peng (2008),  
398 with items relating to the expressive component including “We have similar interests and  
399 hobbies”, and items relating to the instrumental component including “We can fully  
400 communicate about the problems at work”. The Cronbach's alpha value was .92.

401 **Need for affiliation:** This was assessed using Steers and Braunstein’s (1976) five-item  
402 scale. Sample items included “When I have a choice, I try to work in a group instead of by  
403 myself”. The Cronbach's alpha value was .90.

404 **Helping behavior:** This was measured using a three-item scale developed by Yue et al.  
405 (2017). Sample items included “This employee helps other employees when it is clear their  
406 workload is too high”. The Cronbach's alpha value was .86.

407 **Knowledge hiding:** A 12-item scale developed by Connelly et al. (2012) was used, with  
408 sample items including “I pretended I did not know what s/he was talking about”. The  
409 Cronbach's alpha value was .94.

410 **Control variables:** Employees’ gender, age, education, tenure, and income were used as

411 control variables. Gender and education were dummy-coded, with *male* coded as '0' and *female*  
412 coded as '1', *high school diploma or less* coded as '1', *junior college degree* coded as '2', and  
413 *bachelor's degree or above* coded as '3'.

## 414 **4 Results**

### 415 ***4.1 Confirmatory Factor Analysis and Multicollinearity Testing***

416 A series of confirmatory factor analyses (CFAs) was performed to test the constructs'  
417 discrimination (Cheng et al. 2020). In order to compare models, we tested seven CFA models:  
418 a five-factor model, five four-factor models and a one-factor model. Table 1 shows the results.  
419 The five-factor model ( $\chi^2 = 1484.60$ ,  $df = 454$ ,  $IFI = .90$ ,  $CFI = .90$ , and  $RMSEA = .07$ ) provided  
420 the best fit for the data. The standardized factor loadings of all the items were greater than .70  
421 and significant, illustrating that the discriminant validity of the key variables was satisfactory.

422 To examine the hypotheses, a series of multicollinearity tests was employed. The results  
423 showed that the variance inflation factors ranged between 1.01 and 1.28. Since they were less  
424 than 10.00, this indicates that multicollinearity was not an issue (Cohen et al. 2003).

425 **[Table 1 near here]**

### 426 ***4.2 Descriptive Statistics***

427 Table 2 shows the descriptive statistics for each variable, including the means and standard  
428 deviations. Correlation analyses between the variables were also conducted and no abnormal  
429 values were found. As indicated in Table 2, NWG was negatively related to *guanxi* closeness  
430 ( $r = -.33$ ,  $p < .01$ ) and helping behavior ( $r = -.33$ ,  $p < .01$ ), and positively related to knowledge  
431 hiding ( $r = .22$ ,  $p < .01$ ). Moreover, *guanxi* closeness was positively related to helping behavior

432 ( $r = .28, p < .01$ ), and negatively related to knowledge hiding ( $r = -.22, p < .01$ ).

433 [Table 2 near here]

#### 434 **4.3 Hypothesis Testing**

435 To test Hypotheses 1a, 1b, 2a, and 2b, hierarchical multiple regression analyses were employed.  
436 In the first step, the control variables were inputted, followed by the independent variable  
437 (NWG), and the dependent variables (helping behavior and knowledge hiding). As shown in  
438 Table 3, NWG was negatively related to helping behavior ( $\beta = -.32, p < .01$ , Model 6), and  
439 positively related to knowledge hiding ( $\beta = .22, p < .01$ , Model 10). H1a and H1b were  
440 therefore supported.

441 Next, the mediating effect of *guanxi* closeness between NWG and interactions among  
442 colleagues (helping behavior and knowledge hiding) was tested. Model 2 suggested that NWG  
443 was negatively related to *guanxi* closeness ( $\beta = -.33, p < .01$ ), while *guanxi* closeness was  
444 positively related to helping behavior ( $\beta = .28, p < .01$ , Model 7) and negatively related to  
445 knowledge hiding ( $\beta = -.21, p < .01$ , Model 11). After inputting *guanxi* closeness, NWG's  
446 negative effect on helping behavior and positive effect on knowledge hiding were reduced ( $\beta$   
447  $= -.26, p < .01$ , Model 8;  $\beta = .17, p < .01$ , Model 12), while both the positive correlation between  
448 *guanxi* closeness and helping behavior, and the negative correlation between *guanxi* closeness  
449 and knowledge hiding, remained ( $\beta = .19, p < .01$ , Model 8;  $\beta = -.15, p < .01$ , Model 12). Thus,  
450 H2a and H2b were partially supported.

451 In addition, we evaluated the statistical significance of the indirect effect of negative  
452 workplace gossip on helping behavior and knowledge-hiding behavior by adopting Edwards

453 and Lambert's (2007) PRODCLIN tool. The results indicated that NWG had a significant  
454 indirect effect on helping behavior via *guanxi* closeness, as the 95% bias-corrected confidence  
455 interval did not include zero ( $\beta = -.07, [-.11, -.04]$ ). NWG also had a significant indirect effect  
456 on knowledge hiding via *guanxi* closeness, as the 95% bias-corrected confidence interval did  
457 not include zero ( $\beta = .03, [.02, .06]$ ). Thus, H2a and H2b were further supported.

458 **[Table 3 near here]**

459 H3 proposed that need for affiliation played a moderating role between NWG and *guanxi*  
460 closeness. To prove this, a four-step regression analysis was used, in which the control variables,  
461 NWG, need for affiliation, and the interaction between NWG and need for affiliation were put  
462 into the regression equation step-by-step.

463 Before the above steps, NWG and need for affiliation were both mean-centered to create  
464 the interaction between them, so that multicollinearity could be reduced (Aiken and West 1991).  
465 As shown in Table 3, the interaction was negatively correlated to *guanxi* closeness ( $\beta = -.20 p$   
466  $< .01$ , Model 4). To further understand the moderating effect of need for affiliation, as  
467 recommended by Aiken and West (1991), one standard above and one below the mean of need  
468 for affiliation were adopted to show the interactive moderating effect. Figure 2 conformed to  
469 H3 and showed that NWG was more negatively related to *guanxi* closeness when need for  
470 affiliation was high ( $\beta = -.33, p < .01$ ) rather than low ( $\beta = .05, n.s.$ ). Thus, H3 was supported.

471 **[Fig. 2 near here]**

472 To test the moderated mediation hypotheses (H4a and H4b), Edwards and Lambert's  
473 (2007) bootstrapping procedure was then employed. As shown in Table 4, the indirect impact



474 of NWG on helping behavior through *guanxi* closeness varied significantly between different  
475 levels of need for affiliation ( $\Delta \beta = -.07, p < .01$ ). H4a was therefore supported. In the same  
476 way, Table 5 shows that the indirect impact of NWG on knowledge hiding through *guanxi*  
477 closeness varied significantly across different levels of need for affiliation ( $\Delta \beta = .09, p < .01$ ).  
478 Thus, H4b was supported. Furthermore, as shown in Tables 4 and 5, the first-stage moderating  
479 effects were significant ( $\Delta \beta = -.31, p < .01$ ), further supporting H3.

480 [Table 4 and Table 5 near here]

## 481 **5 Discussion**

482 This research used a three-wave survey to test the impact of NWG on two types of interaction  
483 among colleagues, i.e., helping behavior and knowledge hiding, in the context of the hospitality  
484 industry in China. The results showed that NWG had a negative impact on helping behavior  
485 and a positive effect on knowledge hiding. Additionally, it led to reduced *guanxi* closeness,  
486 which in turn further decreased helping behavior and increased knowledge hiding. Moreover,  
487 need for affiliation was found to augment the negative effect of NWG on *guanxi* closeness.

### 488 **5.1 Theoretical Implications**

489 Our research contributes to the current literature in three main ways. Firstly, it extends the  
490 negative consequences of NWG to interactions among colleagues, demonstrating a negative  
491 impact on helping behavior and a positive impact on knowledge hiding. Although researchers  
492 have previously explored the impact of NWG on employees' behaviors, including in-role  
493 behavior and organizational citizen behavior, few studies have looked at NWG from the  
494 perspective of interactions among colleagues (Babalola et al. 2019; Lee, Chou et al. 2016; Wu,

495 Kwan et al. 2018; Xie et al. 2019). Since good interactions among colleagues help work  
496 progress smoothly, our study provides valuable insights by showing how helping behavior and  
497 knowledge hiding are affected by NWG.

498       Secondly, our results show how employees' workplace behaviors are influenced by NWG  
499 through *guanxi* closeness on the basis of COR theory. *Guanxi* occupies a very important  
500 position in Chinese society: employees need to rely on good interpersonal relationships in  
501 addition to personal abilities and skills to achieve their work goals. Since *guanxi* closeness is  
502 an indicator of individuals' *guanxi* with others at a particular time, it is of significance to  
503 understand its mediating role between NWG and interactions among colleagues. Previous  
504 research has called for more attention to be paid to the role of Chinese *guanxi* in the workplace  
505 (Mao et al. 2012). Therefore, by introducing *guanxi* closeness as a mediator, the present study  
506 provides a useful explanation of why NWG can influence interactions among colleagues. In  
507 addition, most previous studies have sought to explain relationships using other theories,  
508 including social exchange theory and leadership-member exchange theory. However, due to  
509 the covert nature of NWG, these theories are not applicable, and cannot be used to explain the  
510 overall decrease in individual *guanxi* closeness. Although this study is not the first to apply  
511 COR theory to interpersonal relationships (e.g., Guan and Frenkel 2019; Harris et al. 2011; Ren  
512 and Chadee 2017), it is the first, to our knowledge, to use it to study *guanxi* closeness. Thus,  
513 by integrating colleague *guanxi* closeness into a resource-based perspective, we extend the  
514 scope of COR theory and provide a new theoretical perspective of *guanxi* closeness as a  
515 mediator.

516       Thirdly, the study demonstrates an important boundary condition by investigating the

517 moderating role of employees' need for affiliation. The results verify that NWG is more  
518 harmful for targets with a high need for affiliation, because they value the sense of belonging  
519 and support from colleagues more than those with a low need for affiliation. Therefore, if they  
520 suffer from NWG and cannot get enough support resources from others, their *guanxi* closeness  
521 will be further decreased, causing less helping behavior and more knowledge hiding. Thus, we  
522 provide further evidence for the notion that the influence of NWG depends to some extent on  
523 individual traits (Babalola et al. 2019; Cheng et al. 2020; Wu, Kwan et al. 2018; Ye, Zhu et al.  
524 2019). In addition, while previous studies have shown that employees with a high need for  
525 affiliation value group membership and usually have strong organizational identification  
526 (Wiesenfeld et al. 2001; Zhu et al. 2017), the present study has shown that they are also more  
527 vulnerable to the negative effects of NWG. This suggests that looking at individual  
528 characteristics from different perspectives may result in different findings.

## 529 ***5.2 Managerial Implications***

530 The empirical results of this study have a number of managerial implications. Firstly, owing to  
531 NWG's serious negative consequences, our study highlights the need for individuals and  
532 organizations to address the issue. The findings suggest that managers should pay attention to  
533 the atmosphere of their organization to ensure that NWG is within an acceptable range. Since  
534 prior studies have shown that NWG is ubiquitous (Babalola et al. 2019), managers should find  
535 practical ways to reduce its occurrence. These could include making clear to everyone in an  
536 organization that NWG may hurt targets both mentally and physically, encouraging employees  
537 to put themselves in each other's shoes and not to breach each other's personal privacy, and  
538 setting rules such as a workplace ban on discussing other people's private affairs.

539           Secondly, as our research demonstrates, *guanxi* closeness is essential if employees are to  
540 successfully perform their work tasks and achieve long-term development. Furthermore, a  
541 united team is better able to accomplish organizational goals and to enhance the long-term  
542 interests of both organizations and individuals. To help create and maintain a positive  
543 organizational climate, managers could consider organizing staff activities outside the  
544 workplace, such as outdoor team-building events or inviting employees for afternoon tea.  
545 These methods may help promote mutual understanding among colleagues and thus form a  
546 harmonious organizational climate, simultaneously decreasing NWG while enhancing *guanxi*  
547 closeness between employees.

548           Thirdly, considering that need for affiliation could affect how targets perceive NWG, it is  
549 important for managers to consider this personal trait. Our results highlight that NWG's  
550 resource loss consequences are magnified when need for affiliation is high, because it hinders  
551 the achievement of employees' need for affiliation and prevents them replenishing their  
552 resource pool using support from colleagues. Therefore, managers first need to understand the  
553 level of need for affiliation of their subordinates, which can be achieved either through a  
554 questionnaire or simply by holding informal discussions with them, before ensuring that all  
555 employees have a sense of belonging to the organization and that all feel they are needed by  
556 the team. Particular attention should be paid to employees with a high need for affiliation when  
557 they become the targets of NWG. Manager should take care of their feelings and work to  
558 rebuild their trust in other people, and engage in one-to-one communication with them to  
559 minimize the harmful effects of NWG.

560           Fourthly, given the importance of helping behavior and knowledge sharing (the

561 counterpart of knowledge hiding), measures should be taken to promote both beneficial  
562 behaviors within an organization. Although they are volunteering behaviors, rewards could be  
563 set to motivate employees to help others and actively share knowledge. For example, if  
564 managers deliver verbal praise at staff meetings to employees who have engaged in these  
565 positive behaviors, a sense of pride could be engendered, making staff more willing to engage  
566 in such behaviors and thereby creating a virtuous circle.

### 567 ***5.3 Limitations and Future Research***

568 Even with these contributions, the study has some limitations. The first relates to CMV, which  
569 was impossible to completely eliminate given the use of self-reporting questionnaires  
570 (Podsakoff et al. 2012). However, several steps were taken to reduce its influence, for example  
571 through the use of anonymous questionnaires and a three-wave collection method, and tests  
572 showed that CMV was not a serious concern.

573 Secondly, although many scholars observe that NWG's verbal, covert nature makes it  
574 difficult for targets identify the culprits (Chandra and Robinson 2010), they may still suspect  
575 particular individuals and treat them differently as a result. Our study did not take this  
576 possibility into account, and we hope future researchers will seek to explore it using an  
577 experimental approach.

578 Thirdly, our study did not examine the possibility that changes in *guanxi* closeness might  
579 be an antecedent of NWG as well as an outcome of it. In other words, if individuals have bad  
580 workplace relationships, it is possible that their colleagues are more likely to spread negative  
581 information about them. However, as our study focused on the consequences and mechanisms  
582 of NWG's effects, this interesting possibility was not explored. Future studies could use

583 longitudinal data or experimental methods to verify this possible two-way causal relationship.

584       Fourthly, *guanxi* is a Chinese concept deeply rooted in the country's culture (Chen et al.  
585 2013; Dunning and Kim 2007). In other countries and cultures, *guanxi* may have a less central  
586 role, and social affects and perceptions are less closely intertwined (Chen et al. 2013; Chua et  
587 al. 2009). Since our study took place in China, future research could consider the issue of cross-  
588 cultural generalizability by testing our model in different settings, in order to enrich the relevant  
589 literature further.

590       Fifthly, since *guanxi* closeness partially mediates the relationship between NWG and  
591 employees' workplace behaviors, other theories may also explain the underlying mechanism,  
592 which means there may be other mediators between the independent and dependent variables.  
593 Future research could explore this issue from different theoretical perspectives.

594       Finally, as the impact of NWG on employees' workplace behaviors was examined only in  
595 the context of the hospitality industry, future studies could test the relationship in other  
596 industries, such as high-tech enterprises.

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## Figure legends

**Fig. 1** The conceptual model of this study

**Fig. 2** The interactive effects of negative workplace gossip and need for affiliation on *guanxi* closeness

## Tables

**Table 1 Confirmatory factor analysis results**

| Model   | $\chi^2$ | df  | $\chi^2/df$ | IFI | CFI | RMSEA |
|---|----------|-----|-------------|-----|-----|-------|
| Five-factor model: each variable as a separate factor   | 1484.60  | 454 | 3.27        | .90 | .90 | .07   |
| Four-factor model 1: <i>guanxi</i> closeness and helping behavior were combined into one factor     | 2184.18  | 458 | 4.77        | .84 | .84 | .09   |
| Four-factor model 2: NWG and knowledge hiding were combined into one factor                         | 2312.41  | 458 | 5.05        | .82 | .82 | .09   |
| Four-factor model 3: NWG and need for affiliation were combined into one factor                     | 2291.34  | 458 | 5.00        | .83 | .82 | .09   |
| Four-factor model 4: NWG and helping behavior were combined into one factor                         | 2125.85  | 458 | 4.64        | .84 | .84 | .08   |
| Four-factor model 5: <i>guanxi</i> closeness and need for affiliation were combined into one factor | 2974.77  | 458 | 6.50        | .76 | .76 | .10   |
| One-factor model  | 6785.48  | 464 | 14.62       | .40 | .39 | .16   |

Notes: <sup>1</sup> $N = 526$ ; NWG = negative workplace gossip; IFI = incremental fit index; CFI = comparative fit index; RMSEA = root-mean-square error of approximation.

**Table 2 Means, standard deviations and correlations of all the study variables**

| Variables                  | Mean | SD   | 1     | 2     | 3     | 4     | 5    | 6      | 7      | 8      | 9      |
|----------------------------|------|------|-------|-------|-------|-------|------|--------|--------|--------|--------|
| 1. Gender                  | .63  | .48  |       |       |       |       |      |        |        |        |        |
| 2. Age                     | 2.81 | 1.30 | .16** |       |       |       |      |        |        |        |        |
| 3. Education               | 1.41 | .63  | .01   | -.04  |       |       |      |        |        |        |        |
| 4. Tenure                  | 2.24 | 1.04 | -.04  | .42** | .15** |       |      |        |        |        |        |
| 5. Monthly salary          | 3.33 | 1.09 | -.08  | -.02  | .01   | .06   |      |        |        |        |        |
| 6. NWG                     | 2.13 | .89  | .00   | -.02  | .00   | -.09* | -.02 |        |        |        |        |
| 7. <i>Guanxi</i> closeness | 3.13 | .66  | .04   | .03   | .01   | .05   | .06  | -.33** |        |        |        |
| 8. Need for affiliation    | 3.56 | .84  | .04   | .05   | .00   | .05   | .07  | -.25** | .11*   |        |        |
| 9. Helping behavior        | 2.60 | .93  | .08   | -.02  | .11*  | .10*  | .01  | -.33** | .28**  | .02    |        |
| 10. Knowledge hiding       | 3.59 | .63  | -.07  | -.06  | -.10* | -.10* | -.08 | .22**  | -.22** | -.13** | -.12** |

Notes: <sup>1</sup>*N* = 526; \* *p* < .05; \*\* *p* < 0.01; NWG = negative workplace gossip; Gender: “0” = male, “1” = female; Education: “1” = high school diploma or less, “2” = junior college degree, and “3” = bachelor's degree or above.

**Table 3 Results of hypothesis testing**

|                            | <i>Guanxi</i> closeness |         |        |         | Helping behavior |         |         |         | Knowledge hiding |         |         |         |
|----------------------------|-------------------------|---------|--------|---------|------------------|---------|---------|---------|------------------|---------|---------|---------|
|                            | M1                      | M2      | M3     | M4      | M5               | M6      | M7      | M8      | M9               | M10     | M11     | M12     |
| Control variable           |                         |         |        |         |                  |         |         |         |                  |         |         |         |
| Gender                     | .04                     | .04     | .04    | .05     | .09*             | .09*    | .08     | .08*    | -.07             | -.07    | -.06    | -.07    |
| Age                        | .00                     | .01     | .01    | .03     | -.08             | -.07    | -.08    | -.07    | -.02             | -.03    | -.02    | -.03    |
| Education                  | -.00                    | .01     | .01    | -.01    | .08              | .09*    | .08*    | .09*    | -.09             | -.09*   | -.09*   | -.09*   |
| Tenure                     | .05                     | .01     | .01    | -.00    | .12*             | .09     | .11*    | .08     | -.07             | -.05    | -.06    | -.05    |
| Monthly salary             | .06                     | .05     | .05    | .05     | .01              | .004    | -.01    | -.01    | -.08             | -.08    | -.07    | -.07    |
| Independent variable       |                         |         |        |         |                  |         |         |         |                  |         |         |         |
| NWG                        |                         | -.33**  | -.32** | -.29**  |                  | -.32**  |         | -.26**  |                  | .22**   |         | .17**   |
| Mediator                   |                         |         |        |         |                  |         |         |         |                  |         |         |         |
| <i>Guanxi</i> closeness    |                         |         |        |         |                  |         | .28**   | .19**   |                  |         | -.21**  | -.15**  |
| Moderator                  |                         |         |        |         |                  |         |         |         |                  |         |         |         |
| Need for affiliation       |                         |         | .03    | -.03    |                  |         |         |         |                  |         |         |         |
| Interaction                |                         |         |        |         |                  |         |         |         |                  |         |         |         |
| NWG × Need for affiliation |                         |         |        | -.20**  |                  |         |         |         |                  |         |         |         |
| <i>F</i>                   | .76                     | 10.94** | 9.42** | 11.02** | 3.12*            | 12.92** | 10.13** | 14.41** | 3.02*            | 7.01**  | 6.53**  | 7.79**  |
| $\Delta F$                 | .76                     | 61.41** | .35    | 19.86** | 3.12*            | 60.18** | 43.93** | 20.46** | 3.02*            | 26.28** | 23.45** | 11.60** |
| <i>R</i> <sup>2</sup>      | .01                     | .11     | .11    | .15     | .03              | .13     | .11     | .16     | .03              | .08     | 0.07    | .10     |
| $\Delta R$ <sup>2</sup>    | .01                     | .10     | .00    | .03     | .03              | .10     | .08     | .03     | .03              | .05     | 0.04    | .02     |

Notes: <sup>1</sup>*N* = 526; \* *p* < .05; \*\* *p* < .01; NWG = negative workplace gossip.



**Table 4 Results of the moderated path analysis (Y = Helping behavior)**

| Moderator variable                         | NWG (X) → Guanxi closeness (M) → Helping behavior (Y) |                        |                                |  |  |
|--|---|------------------------|--------------------------------|--|--|
|  | Stage   |                        | Effect                         |  |  |
|  | First<br>( $P_{MX}$ )                                 | Second<br>( $P_{YM}$ ) | Direct effects<br>( $P_{YX}$ ) | Indirect effects<br>( $P_{YM}P_{MX}$ ) | Total effects<br>( $P_{YX}+P_{YM}P_{MX}$ ) |
| Simple paths for low need for affiliation  | -.06  | .21**                  | -.05                           | -.01                                   | -.07                                       |
| Simple paths for high need for affiliation | -.37**  | .23**                  | -.47**                         | -.08**                                 | -.56**                                     |
| Differences                                | -.31**  | .02                    | -.42**                         | -.07**                                 | -.49**                                     |

Notes: <sup>1</sup> $N = 526$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; NWG = negative workplace gossip;  $P_{MX}$ : Path from NWG to *guanxi* closeness;  $P_{YM}$ : Path from *guanxi* closeness to helping behavior;  $P_{YX}$ : Path from NWG to helping behavior. <sup>2</sup>Low need for affiliation refers to one standard deviation below the mean value of need for affiliation; high need for affiliation refers to one standard deviation above the mean value of need for affiliation. <sup>3</sup>Tests of differences for the direct, indirect, and total effects were based on bias-corrected confidence intervals obtained from bootstrapping estimates.

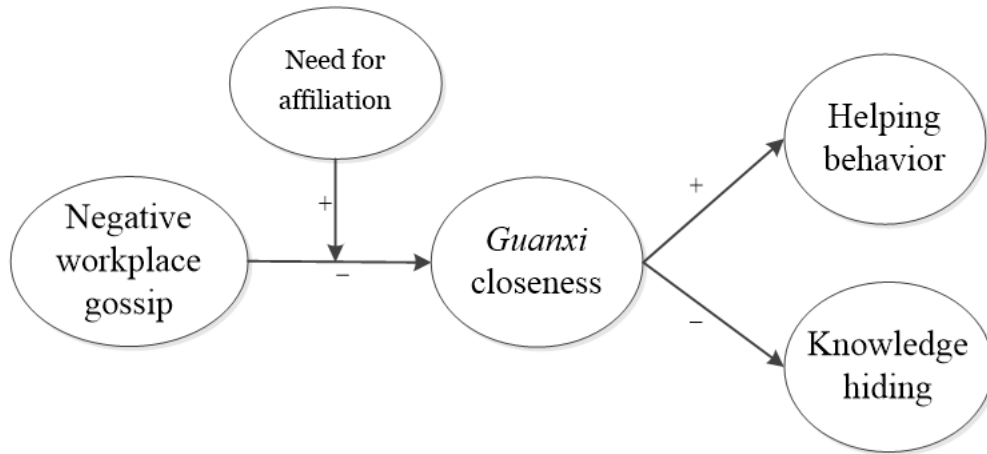
**Table 5 Results of the moderated path analysis (Y = Knowledge hiding)**

| Moderator variable                         | NWG (X) → Guanxi closeness (M) → Knowledge hiding (Y) |                        |                                |  |  |
|--|---|------------------------|--------------------------------|--|--|
|  | Stage   |                        | Effect                         |  |  |
|  | First<br>( $P_{MX}$ )                                 | Second<br>( $P_{YM}$ ) | Direct effects<br>( $P_{YX}$ ) | Indirect effects<br>( $P_{YM}P_{MX}$ ) | Total effects<br>( $P_{YX}+P_{YM}P_{MX}$ ) |
| Simple paths for low need for affiliation  | -.06  | .03                    | .04                            | -.00                                   | .03  |
| Simple paths for high need for affiliation | -.37**  | -.24**                 | .14**                          | .09**                                  | .22**                                      |
| Differences                                | -.31**  | -.27**                 | .10                            | .09**                                  | .19**                                      |

Notes: <sup>1</sup>N = 526; \*  $p < .05$ ; \*\*  $p < .01$ ; NWG = negative workplace gossip;  $P_{MX}$ : Path from NWG to *guanxi* closeness;  $P_{YM}$ : Path from *guanxi* closeness to knowledge hiding;  $P_{YX}$ : Path from NWG to knowledge hiding. <sup>2</sup>Low need for affiliation refers to one standard deviation below the mean value of need for affiliation; high need for affiliation refers to one standard deviation above the mean value of need for affiliation. <sup>3</sup>Tests of differences for the direct, indirect, and total effects were based on bias-corrected confidence intervals obtained from bootstrapping estimates.

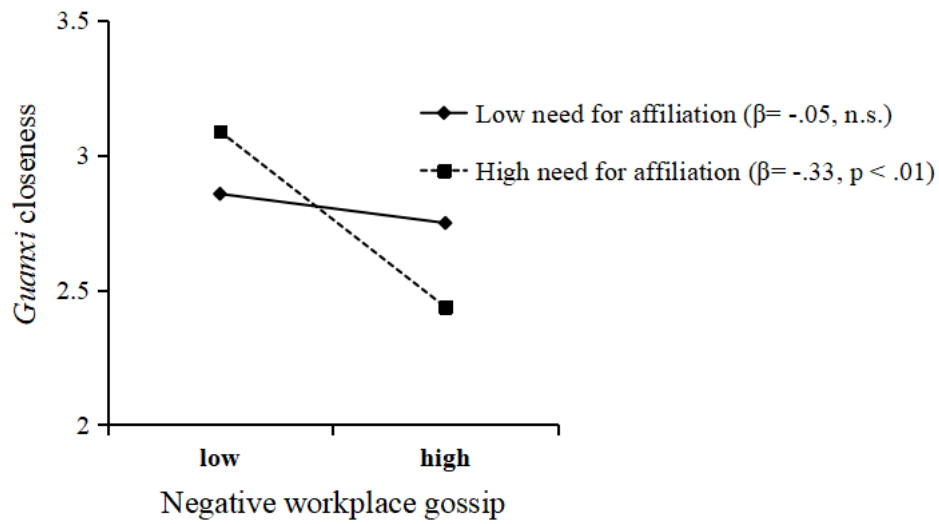
**Figures**

**Figure 1**



**Fig. 1** The conceptual model of this study

**Figure 2**



**Fig. 2** The interactive effects of negative workplace gossip and need for affiliation on *guanxi* closeness