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## **Female solidarity based on Chinese social media Weibo during COVID-19**

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Loughborough University. <https://doi.org/10.17028/rd.lboro.13242314.v1>.

# **Female Solidarity Based on Chinese Social Media Weibo during COVID-19**

Masters Dissertation  
MA Media and Creative Industries

By  
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## Abstract

COVID-19 has plunged the world into a state of tension and instability, and female medical workers play a vital role on the frontlines. However, policies on global health governance may ignore gender perspectives and may overlook the physiological needs of females during times of emergency. It is important to protect the physical and mental health of front-line female medical staff during the COVID-19. The Chinese volunteer organisation *Stand By Her* is committed to donating female sanitary products to female medical staff in Hubei Province, China, to alleviate the problem of shortage of supplies during menstruation. This volunteer team is more than 95% female. The team's successful experience of female solidarity has enabled front-line female medical workers to receive supplies and emotional support. The team also appeals to society through social media about gender discrimination in the workplace and the need to recognise gender differences and eliminate female shame over menstruation. This research focuses on *Stand By Her* volunteer team in China to examine the effects of digital female activism and the development of female solidarity. This research explores in greater depth how gender issues have developed in China on social media. The study used ethnographic methods to conduct in-depth interviews with front-line female medical workers and *Stand By Her* volunteer teams. Research and analysis were carried out according to the analysis framework and repeatedly adjusted in the interviews and coding by the researcher. This study found three key factors for the successful implementation of digital female activism: establish a well-structured framework and a common goal to mobilise the empathy of the members and an appreciation for the contribution of the members; establish the cohesion of the female on social media to develop the female solidarity; the formation of a strong community to establishment of a new identity and trust for females. Finally, this research also analyses gender issues and their development in China through social media platforms and asserts that the success of digital female activism has its inevitability and distinctiveness. The inevitability of the organisation's success is reflected in the organisation's clear requirements for gender equality, which meets three levels of needs. However, the distinctiveness of its success is due to the unique circumstances of COVID-19 and the positive development of feminism on social media in the past two years. In conclusion, although gender issues in China may still be stigmatised, this study also shows an optimistic attitude towards the development of gender issues on social media in China.

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Table 1 Framework for the presentation of results

## 1. Introduction

### 1.1 Background

COVID-19 has placed the world in an emergency situation. Female medical workers around the world have taken on more responsibilities in this pandemic and therefore face situations of potential risk. According to data released by The United Nations (2020), 70% of medical workers in the world are female. Similarly, in China, according to data released by the National Health Administration of China (2020), female medical personnel make up more than two-thirds of the total workforce of the Hubei Provincial Medical Team. Female medical workers have taken on heavy responsibilities and faced longer working hours on the front-lines of the fight against the pandemic. As a result, they suffer from physical fatigue and emotional pressure (International Labour Organization, 2020), which may hinder their health and affect the quality of their front-line work (Kang et al., 2020).

Menstruation is a perpetual challenge for females, and feminine hygiene products are necessary supplies for female medical staff. However, feminine sanitary products are not considered as anti-pandemic materials, and cannot use the pandemic period's fast-track logistics, which makes it difficult to provide them to many medical workers (*Stand By Her*, 2020). Therefore, from a gender perspective, the neglected physiological needs of female health care workers have become an urgent problem and it is very important to protect the physical and mental health of front-line female medical workers. In response, Yu Liang, a female activist, established a charity project called *Stand By Her* on the Chinese social media platform Weibo. This project started on 7 February and consists of a volunteer team committed to donating female sanitary products to female medical staff in Hubei Province. More than 95% of the volunteers are female. They called on the public to pay attention to the menstrual needs of female medical workers on Weibo and used social media to raise funds and coordinate the needs of various hospitals. A total of 2.53 million yuan was raised through social media, and supplies were sent to 205 hospitals and medical teams to help more than 84,500 female medical staff (*Stand By Her*, 2020). Their actions on social media not only provided necessary supplies to female medical workers in the most severe period of the pandemic (from February 10th), but also led the public and government to pay more attention to frontline medical workers' needs. This shows how female solidarity can play a powerful role through social media.

### 1.2 Research Focus

As shown by this example, females can be a powerful force in fighting COVID-19 and play a vital role in economic recovery (China Women's Daily, 2020). Empowering females through social media may bring about female solidarity and trust in a positive series of chain reactions (Alexander et al., 2019). In recent years, scholars have studied female solidarity primarily in the following aspects: emotional equality between males and females (Cantillon and Lynch, 2017), celebrities speaking up about their experiences with sexual assault (Rajagopalan, 2019), global finance, and feminism (Razavi, 2018). There are comparatively few studies on female solidarity on social media. Therefore, this research will focus on how

volunteer teams from social media and their needs, motivations, and experiences. More specifically, this dissertation will examine social media is used to how gradually promote the establishment of female solidarity and related an organisation. In addition, the relationship between female solidarity and the establishment of a new collective identity will be explored in more depth.

Many issues of gender inequality were exposed during the pandemic, and scholars have called on the government and society to consider its impact on females (Alon et al., 2020; Collins, 2020; Lancet, 2020; Wenham et al., 2020). In the world, female medical workers on the front-line may become the so-called “vulnerable group” and may be disadvantaged. For example, the size of protective clothing does not fit most female medical workers, and many of them suffer from menstrual pain and are unable to replace their sanitary products for long periods of time (Liang, 2020). In response, female activist Yu Liang gathered volunteers through Chinese social media platform Weibo to help front-line female medical workers and to call for attention to gender inequality. The motivation for this female solidarity on social media is that society may ignore the normal physiological needs of front-line female medical workers during COVID-19. This is only a part of the broader issue of gender equality. Therefore, the core research question of this dissertation is: during COVID-19 how can the Chinese volunteer team *Stand By Her* gradually promote full female solidarity and equality on social media? The focus of this research is to discuss the development of gender issues on Chinese social media platform Weibo.

### **1.3 Research Aim and Objective**

This study will use an ethnographic approach to discuss how female solidarity movements gain influence on social media platforms. It will study the influence of female solidarity on society and explore the effects of this new collective identity. This study used interviews from frontline female medical workers to understand the challenges they face in the fight against the pandemic. In addition, volunteers of the *Stand By Her* team were also interviewed to understand their motivations and experiences. The aim of this dissertation is to understand how the Chinese volunteer team promoted female solidarity on social media during COVID-19 and the key factors of their success. It will further discuss Chinese issues of gender equality and its development on social media platforms.

### **1.4 Research Value and Contributions**

Gender inequality is a complex issue that has persisted in all fields, including the medical field. There are already research that studies gender inequality in domestic settings (Alon et al., 2020), academia (Malisch et al., 2020), working hours (Collins et al., 2020), and so on. Scholars point out that it is also vital to consider gender inequality in global health. This research will focus on the inequalities that may be experienced by those in the front-line fight against the pandemic. The neglected physical health of frontline female medical workers is only part of a greater challenge throughout the world. This research will examine gender issues in global health and mainstream awareness by exploring a successful case of female solidarity on Chinese social media Weibo. It is hoped that this work will increase the

understanding of female solidarity on social media and may help to deepen the concepts related to female solidarity. In addition, it is hoped that the discussion of gender equality will continue to develop in China, inspiring more females in China and even other countries around the world to find solidarity on social media platforms.

## 2. Literature Review

The core research question is: during COVID-19, how can the Chinese volunteer team *Stand By Her* gradually promote female solidarity on social media? In this literature review, this core question will be discussed in four parts. The first part is gender inequality in global health. The second is digital activism, and this has four subsections: the focal issues of digital activism, how to define the organisation of digital activism, feminism in digital operations, and the development of gender issues in Chinese digital operations. The third part is solidarity and social media. The fourth part is female solidarity and the development of gender equality. The above four parts respond to the main research question of this work at different levels.

### 2.1 Gender Perspectives Under Global Health Governance

In global health governance, gender inequality often seems to be ignored, both in policy (Wenham et al., 2020; Smith, 2019) and in practice (Harman, 2020; Lancet, 2020; Wenham et al., 2020). Smith (2019) studied five high-level health policy documents, only two of which took gender inequality into consideration. Only the guidance document issued by the Global Health Crises Task Force (2017) mentioned the need to include gender in global health response measures. However, Wenham et al. (2020) published an article in *The Lancet* emphasizing that a feminist perspective should be added to global health policies.

In the global emergency of COVID-19, scholars have also published academic research on gender equality issues in various fields. This concludes that there is a gender gap in the division of housework (Alon et al., 2020), academia (Malisch et al., 2020), working hours (Collins et al., 2020), and agriculture production and food systems (Ragasa and Lambrecht, 2020). In addition, scholars have also studied the impact of social media on the response to COVID-19, such as the transmission of false information (Pennycook et al., 2020), and racial discrimination (Croucher et al., 2020). However, there is no specific case study on digital activism and female solidarity during COVID-19.

Due to the severity and rapid spread of COVID-19, the global response to the pandemic still lacks consideration of gender inequality, especially for frontline female workers. Harman (2020) emphasised that during this global pandemic, in particular, females seem to be in a state of neglect; frontline female workers are 'conspicuously invisible'. Moreover, Smith (2019) pointed out that a 'tyranny of the urgent' seems to have appeared around the world: do we priorities masks or female physiological needs? Under the influence of COVID-19 this 'tyranny of the urgent' seems to be more acute. However, when discussing this issue, the logic must not fall into a pseudo-dichotomy of needing to choose between one or the other, where gender inequality and prevention work at odds. Rather, the focus should be on whether there is a lack of consideration of gender in the process of policy

formulation and decision-making. Many scholars have reached a consensus on this point (Bavel et al., 2020; Harman, 2020; Oyebode et al., 2020; Wenham et al., 2020; Smith, 2019). For example, Smith (2019) pointed out the need to incorporate feminist perspectives in the policies for pandemic prevention and control. Harman (2020) also agreed with this point and emphasised the importance of females in emergencies and long-term treatment, and the need to propose specific response plans to prevent frontline female workers from being marginalised. Therefore, paying more attention to the physiological needs of frontline female medical workers has become particularly important in the response to COVID-19.

## **2.2 Digital Activism**

With the popularity of digital devices all over the world, collective action scholars have many theories about digital activism and social movements that quickly gain attention in our networked society (Earl and Kimport, 2011). Digital activism is defined as practical movements that spread through the Internet and owing them to reach a wider audience at a lower cost (Clark, 2015). Scholars have researched the increasingly central role of technology in social movements and collective action (Bennett and Segerberg, 2013; Etudo et al., 2019; Young et al., 2019). Digital activism is seen as a way to successfully challenge mainstream social standards or norms, particularly issues of feminism and gender inequality.

### **2.2.1 The Focus of Digital Activism**

In digital activism, there are two logical starting points: collective action and connective action. Bennett and Segerberg (2013) pointed out that in contrast to collective action, connective action basically has no central organiser. It does not require participants to be part of a formal organisation and employs a personally differentiated action framework. Bennett and Segerberg (2013) believe that digital media is the core of connective action. However, many scholars present a range of counter-arguments (Bondes and Schucher, 2014; Heise et al., 2019; Karpf, 2014; Lim, 2013). First, the connective action theory ignores the large contribution of core members (Kavada, 2015), who put in significant amounts of their own time and energy (Karpf, 2014). Second, connective action is considered to have only a limited influence (Morozov, 2011) and is not sustainable (Lim, 2013).

Zeng (2020) believes that the connective action theory proposed by Bennett and Segerberg (2013) is applicable to feminism in authoritarian countries, such as China. Zeng (2020) used Bennett and Segerberg (2013) as the theoretical framework for his research on the #MeToo movement and the Chinese social media platform Weibo. However, in this research, this theory does not apply to the *Stand By Her* and that the connective action theory of Bennett and Segerberg (2013) has strong limitations. First, Zeng (2020) believes that it is difficult for feminists to develop large-scale coercive “collective action” through Chinese social media since it is strictly

controlled, forcing feminists to constantly compete with censorship through various methods. However, in the cases of this study, participation on social media has been extremely high. For example, one movement used customised hashtags and links to social media accounts of celebrities and activists to increase traffic and discussions. This made the event very influential on social media. In addition, the project was not censored, but was instead praised by the government and the mainstream society. Secondly, Zeng (2020) also believes that the space for Chinese feminism on social media is very limited and fragmented, which is in contrast to this study in terms of organisational scale and effectiveness.

In this case study, the organisation was established by a feminist. Volunteers are considered as the official members of the organisation, and each member works with a different group. Thus, collective action is more appropriate for this research. This dissertation examines digital activism using the collective action theory, which emphasises the individual's contribution to the collective when fighting in the public interest (Bennett and Segerberg, 2012).

### **2.2.2 The Organisational Framework of Digital Activism**

The collective action framework requires the organisation's members to jointly construct an organisational structure, requiring the leaders and members to work together to formulate basic processes of the movement, and allocate resources rationally (Bennett and Segerberg, 2012), and find a balance between individual and organisational needs. Based on the logic of collective action in the Bennett and Segerberg (2012) study, the following summary is made. First, compared with previous non-digital social movements, collective action focuses on whether there are a stable demand and core structure in the digital space. Second, collective demands and identity are very important for a digital activist organisation and need to reflect on the uniqueness of the organisation. Third, the collective action framework requires individuals to mobilise and contribute. It is also necessary for the organisation members to share the organisation's motivations and new collective identity.

### **2.2.3 Feminism in Digital Activism**

Through the continuous development of network activism, feminism has been brought into the public eye. Feminists are visibly and constantly fighting for female rights in digital and public spaces. In fact, social media has become a potentially valuable tool for feminists (Jackson, 2018; Stache, 2015), allowing them to connect with more individuals (Baer, 2016), and constantly act on new ideas. This enables feminists to share their thoughts and demands more broadly, setting off a chain reaction. Clark (2015) concludes that feminists have established deeper and more effective interactions with people through social media. Their use of information sharing allows them to share feminism in public spaces effectively.

Social media provides more space for feminists to express their demands and take practical actions, enabling them to establish closer connections with others through the Internet.

In contrast, Jane (2016) claimed that the digital space is harmful to feminism. Some scholars have shown that expressing feminist views on social media may also attract negative attacks from the public (Jane, 2016; Locke et al., 2018). This may make people afraid to express their ideas and hide their views. But there is also strong evidence for a positive effect of social media on the dissemination of feminist views. Schuster (2013) argues that it is essential for building communities and achieving solidarity, and Carstensen (2013) argues it can enable feminism to be discussed in a concentrated manner. In addition, Mendes et al. (2018) are cautiously optimistic about the viral spread of feminism in the digital space. Moreover, social media platforms have also facilitated the expansion of feminist space, making it more open and integrated (Crossley, 2015). Based on the opinions of the above scholars, although feminism has many positive interactions in social media, it may still be restricted by official censorship and negative attacks from the public. Therefore, it is necessary to also study feminism in the digital space of different cultures. This research will focus on the digital activism of Chinese feminism.

#### **2.2.4 The Dilemma and Development of Gender Issues in China's Digital Action**

In recent years, digital activism has enabled feminist movements such as the #MeToo movement to spread globally through social media. This also has led more people to pay attention to movements related to feminism in China. In China's online spaces, including social media platforms, Chinese feminists are increasing by participating in discussions (Han and Lee, 2019). The volume of discussions on gender issues on Chinese social media platforms has gradually expanded.

However, scholars disagree about the space for gender issues on social media and its actual impact. Some scholars believe that in China, Weibo is a relatively free social media platform that is less subject to government intervention (Han, 2018; Li and Li, 2017; Tong and Zuo, 2014). In contrast, Liao (2020) believes that the space for gender issues on Weibo is being gradually suppressed by official forces, and that gender issues are being stigmatised by extreme patriarchal leaders. Zeng (2020) believes that although feminism has a larger space for communication on social media than ever before, it is still subject to official pressure from the government. Han and Lee (2019) also agree with these views. Though topics related to gender issues can be quickly spread on social media platforms through tags, they may also be deleted from the platform.

By way of illustration, when the #MeToo social movement spread to China, its hash-tag quickly spread on Weibo but was soon banned by social media platforms (Kuo, 2018), and Weibo even closed the social media accounts

of some activists who supported the movement (Fincher, 2016). In order for gender issues to be discussed on social platforms, many supporters are still studying how to avoid content censorship and circumvent keyword blocking searches (Zeng, 2020). For example, some avoid detection by using homo-phonic phrases or emojis to replace tags of certain topics. However, some of these replacements, such as the 'Rice Bunny' tag of the #MeToo, were also deleted (Sun, 2020).

The situation of China's digital action in gender issues is complex. Weibo has indeed allowed feminist ideas to develop in China. More and more people can follow activists through social media platforms and participate in discussions. Online, people are able to discuss and support gender-related issues, and some individuals may begin to join offline practical activities as well. However, under the Chinese current system, Weibo may subject to official censorship. Therefore, activists who want to discuss gender inequality on Weibo may need to use hashtags to make them quickly spread on social media. Hashtags can promote the spread of content on social media many times more quickly (Teotonio, 2014), stimulate people to participate, and comfort people's anxiety and tension (Clark, 2015; Keller et al., 2018; Stache, 2015).

In contrast, Zeng (2020) pointed out that for feminism to survive under repression, it must rely on a flexible action framework, and that much of Chinese activism on social media platforms are 'scattered'. Therefore, the focus of this work is to study the digital activism action framework in this context to understand its success. This will help better understand the current development of feminism on Chinese social media platforms.

### **2.3 Social Media and Mass Solidarity**

Emotional exchanges on social media can trigger empathy and solidarity, and even lead to real-life actions. Emotions are amplified by social media and can become viral (Liu et al., 2019; Zhang and Qu, 2018), particularly during major traumatic events. Harber and Cohen (2005) emphasised that when major events (including social unrest or natural disasters) occur, people's desire to communicate is intensified by the media. However, in a turbulent social environment, people's emotions may also be exaggerated by panic and negative reports on social media, and the resulting emotional expression needs may make the spread of emotions on social media wider and faster (Griffiths, 2019).

However, Bail et al. (2017) pointed out that the emotional spread of topics on social media may not be sustainable. Thus, if digital activist organisations want to gather people for the long term, they need to establish a new atmosphere and identity so that emotional anxiety and panic can stabilise. To mobilise people's emotional reactions (Lucas et al., 2017), they need to encourage emotional communication (Lin et al., 2014), and even join the collective action (Turner, 2007). Once people establish solidarity through communication on social media, their sense of connection on social media platforms will increase (Bavel et al., 2020), creating an atmosphere of solidarity (Liu et al., 2019) and a sense of belonging (Papacharissi,

2016). In other words, in addition to the rapid gathering of people, the transmission of emotions can also enable people to establish new identities and unite.

Emotional communication and the establishment of new identities may also trigger actions offline. Through social media people can communicate their thoughts and voices (Howard, 2010), bring overlooked issues into awareness (Freelon et al., 2018; Kramer et al., 2014), quickly gather resources for those in need (Lin and Margolin, 2014; Turner, 2007), and exert a strong social influence (Freelon et al., 2018; Lin, 2015; Margolin and Liao, 2018). However, that solidarity arising from digital media will be affected by different cultural backgrounds, specific events, and motivations. Therefore, when a major event occurs in society, how people gathered on social media, as well as their emotional needs, motivations and experiences are all worthy of in-depth research.

#### **2.4 Woman's Solidarity and Gender Equality and Development**

Female solidarity is an important concept in relation to gender equality. Solidarity is an important element of a social movement (Stewart and Schultze, 2019), and female solidarity is a key element towards equality (Alexander et al., 2019; Cornwall, 2007; Morrison, 2018; Razavi and Miller, 1995). It is also particularly important for female solidarity to be discussed in different cultural and social environments.

In recent years, various scholars have noted that female solidarity is mainly reflected in the following aspects: marriage (Alexander et al., 2019; Cornwall, 2007), emotional equality (Cantillon and Lynch, 2017), political participation (Morrison, 2018; Berg and Carbin, 2018), maternal health (Johnson, 2020), global finance (Razavi, 2018), and sexual assault (Rajagopalan, 2019). Most of these cases have explored inequality in terms of the relationship between men and women on mainstream issues, such as domestic violence and sexual assault. However, this dissertation focuses more on solidarity for female physiological needs. Studies also rarely focus on the relationship between female solidarity and the establishment of a new collective identity. Therefore, this case study will explore more deeply the motivations for and actual effects of female solidarity.

#### **2.5 Literature Review Conclusion**

Under COVID-19, global health governance needs to consider gender inequality in its decision-making. This requires feminism to act together in the digital space and call the government to meet the physiological needs of frontline female health workers, which have so far been overlooked. Previous studies rarely focus on the relationship between female solidarity and the establishment of a new collective identity, and there seems to be no case study of digital activism and female solidarity in COVID-19. Therefore, this work will explore in more depth the motivations for and actual effects of solidarity in the digital space for females under COVID-19.



### **3. Research Methods**

#### **3.1 Research Methodology**

The focus of this research is the development of female solidarity on social media. More importantly, the focus of this dissertation is on how feminist organisations promote the development of female solidarity on social media. This research is based on the experiences of volunteer teams on social media platforms, which are difficult to quantify. Therefore, digital ethnography will be used to conduct interviews with front-line female medical workers and volunteer teams. Digital ethnography is an analytical method of reflection on the world and society (Sandercock and Attili, 2010), and its aim is to conduct in-depth research on cultural groups (Chretien et al., 2015).

One of the advantages of digital ethnography is its ability to understand the dynamically changing digital world in ways that encompass emotions and the senses through ethnographic methods (Pink et al., 2016). More importantly, it is able to achieve a deeper understanding of individuals' experiences and values (Duggan, 2017), and allows for a more systematic understanding of specific issues (Whitehead, 2004). It is particularly useful for understanding people's attitudes when they are affected by major social events (Whitehead, 2005).

Therefore, this dissertation uses digital ethnographic methods to analyse people's experiences. Interviews and focus groups were used to understand the motivations of the interviewees. Through in-depth interviews, the interviewees' thoughts and experiences can be better understood, which helps to deepen the researcher's understanding and knowledge of the research topic (Whitehead, 2005). This work conducted semi-structured interviews with front-line female medical workers and volunteer team members, in order to obtain more specific and diversified first-hand data.

#### **3.2 Criteria for Selecting Respondents**

This study selected informants through a snowball strategy and interviewed front-line female medical workers and *Stand By Her* volunteer team members. Interviews with these two groups had different focuses. Firstly, interviews with front-line female medical workers were aimed at understanding the difficulties of their fight against COVID-19. This data was then used to understand the demands of the volunteer team and the effects of the *Stand By Her* project. In order to make the research results more universal, interviewees were selected based on the following criteria.

##### **3.2.1 Criteria for Selecting Front-line Female Medical Workers**

The target group was restricted to front-line female medical workers who were working in Wuhan, China, in 2020 to fight COVID-19. Respondents of different ages and departments were selected through a snowball method. Age was set as a standard to understand the perceptions of workers of different ages.

### **3.2.2 Criteria for Selecting Volunteer Teams**

This research selected the interviewees of the volunteer team based on their gender and departments in the team. Firstly, interviewees were selected from different departments to better understand the internal structure of the organisation. In regards to gender, since women made up 95% of the volunteer force and since the main purpose of this research is to study female solidarity, the sample is selected towards women.

### **3.2.3 About Interviewees**

Front-line female medical workers:

The researcher used a snowball strategy to contact more informants from one informant's recommendation. The researcher interviewed eight front-line female medical staff who worked to combat COVID-19 in Wuhan. They came from three different departments and their ages ranged from 25 to 49 years old.

Volunteer team members:

Again, using a snowball method, the researcher collected basic information about team members through questionnaires. The researcher then selected 10 volunteer team members, nine females and one male through the results of the questionnaire. Their ages ranged from 18 to 30 years old and they came from seven different departments of the volunteer team.

## **3.3 Data Collection**

The researcher chose different interview methods for the two groups: a face-to-face group interview and one-on-one phone call. The researcher obtained the consent of all interviewees and recorded all interviews. The interviews from the two groups totalled around 30 hours and about 450,000 transcribed words. In order to ensure the credibility of this research, at the end of each interview, the researcher confirms with the interviewees based on the analysis framework of this work.

Group interviews with front-line medical workers:

The researcher conducted three small group interviews of two to three persons. The duration of the interviews ranged from one hour to one and a half hours.

Interviews with the volunteer team:

The researcher conducted interviews over the phone with the volunteer team members. The lengths of the interviews varied from two to four hours.

## **3.4 Data Analysis Framework**

This research uses an ethnographic analysis framework, which requires researchers to make flexible adjustments to adapt to the ideas of different individuals (Whitehead, 2005). The researcher continues to reflect and update the analysis framework throughout the interviews and research analysis. The researchers manually tagged, coded, and categorised all interviews in this study.

### **3.5 Ethical Issues**

The interviewees' identities have been anonymously processed, the identity of the interviewee is replaced by a code: V refers to the interviewee of the volunteer team, and H refers to the front-line medical staff. The identification code also used in research analysis. And the interview data and informed consent will be stored in accordance with confidentiality provisions to protect their privacy. All interviewees had a clear understanding of the content and purpose of this research before the interview and signed an informed consent form. Before all interviews, the interviewees were told that they had the right to terminate the interview at any time. Moreover, in order to respect the privacy wishes of respondents from volunteer teams, their age and which department of the volunteer team they come from will not be shown in the finding part.

## 4. Findings

### 4.1 Framework of Results

Coding	Theme
<ol style="list-style-type: none"><li>1. The menstrual period's experience and difficulties during COVID-19</li><li>2. Receive supplies and online emotional support</li><li>3. Add a gender perspective to global health governance</li></ol>	The experiences of front-line female medical workers during menstrual period in COVID-19
<ol style="list-style-type: none"><li>1. Motivation and ideas to join the team</li><li>2. Male volunteers joining the team</li><li>3. The practice of the volunteer team</li></ol>	The experience of the volunteer team
<ol style="list-style-type: none"><li>1. Definition and core of female solidarity</li><li>2. The establishment of female collective identity and trust</li><li>3. The dilemma of female solidarity</li></ol>	Female solidarity

Table 1 Framework for the presentation of results

The above table is the analysis framework of this research, and is the final presentation of the researcher's reflections and adjustments during the interviews and coding. Through interviews with front-line female medical workers and volunteer team members, the researcher identified nine codes and three topics. According to this framework, data analysis and results will be presented in the following subsections.

### 4.2 The Experiences of Front-Line Female Medical Workers During Menstrual Period in COVID-19

#### 4.2.1 The Menstrual Period's Experience and Difficulties During COVID-19

Faced with COVID-19 and the lockdown without warning, front-line medical workers were psychologically and physically unprepared. The arduous tasks and shortage of manpower and medical supplies have forced medical staff to work longer hours.

"In the beginning, medical protective equipment was in short supply. In order to save protective equipment, working hours were extended." (H2, 49 years old)

"I was very tired when I was not used to it in the early stage, and sometimes I was hypoxic." (H3, 37 years old)

Female medical workers in particular also faced inconveniences from their menstrual period. Physical discomfort, psychological pressure, and a lack of sanitary products

all put them in a difficult position. Many interviewees encountered physical pain and discomfort, but they chose to prioritise their work and overcome their difficulties.

"There are very few protective clothing, and we will endure it by ourselves even if it hurts." (H4, 28 years old)

"It was painful every time... They will let me rest more when they know, but this is not the norm." (H3, 37 years old)

Secondly, the sudden lockdown prevented them from purchasing sanitary products, and their personal reserves were quickly used up. Some organisations donated diapers which they used when they ran out of pads.

"At the beginning, we could borrow from each other, but we quickly used them up." (H2, 49 years old)

"The supermarkets were closed at the time, which was particularly troublesome." (H6, 35 years old)

"There are diapers, it's very stuffy to wear... Protective clothing is already very uncomfortable, and diapers are even more so." (H5, 26 years old)

More importantly, wearing protective clothing prevented workers from changing the sanitary napkins for long periods of time, which sometimes led to discomfort and bloodstains. Most interviewees ignored the physical inconvenience and did not express it to upper departments or social media.

"That it was very difficult for hospitals to guarantee medical supplies at the time, and we would not add to the burden on the hospital on personal issues. (H3, 37 years old)

Most interviewees had similar thoughts as interviewee H3. However, interviewee H7 (25 years old) said "I had considered talking about it on social media, ultimately I did not since I thought that nothing would change."

#### **4.2.2 Receiving Supplies and Online Emotional Support**

During the pandemic, medical workers are a key support for society, and feminist organisations are the backbone of female health workers. The donations from the volunteer team relieved the worries of front-line female medical workers. Most of the interviewees mentioned that they did not realise that the volunteer team could also donate sanitary supplies.

More importantly, the voices of the volunteer team on social media provided front-line female medical workers with important emotional support. Some interviewees mentioned that they were particularly touched by the fact that while most people were focused on COVID-19, their personal "trivial" difficulties would actually be cared about by others.

"Only females could realise the difficulties. It's really touching to have cared about such trivial things in facing of the overall situation." (H1, 36 years old)

In addition, the volunteer team also showed society the hard work and dedication of the front-line female medical workers and they received blessings from strangers for their efforts. The front-line female medical workers felt that they were part of an

invisible, but a warm community and that their predicament had been understood and valued.

"We are actually very busy, and occasionally we rely on Weibo to relieve the pressure. When we see messages from other females who care about us, we tear up." (H4, 28 years old)

"In the past, some people may think that nurses are not very important. Now it is warming to be seen and recognised by strangers for our pain." (H6, 35 years old)

#### **4.2.3. Adding a Gender Perspective to Global Health Governance**

Having a gender perspective incorporated into the policies of global health governance is necessary for front-line female medical workers. Some interviewees mentioned that because most medical workers are female, it is necessary to consider their perspectives to protect their physical health. Some interviewees mentioned that they hope the government will include sanitary products in the supply list.

"If the sanitary products can be guaranteed by the government, no matter what sudden difficulties are encountered in the future, this problem will not arise." (H2, 49 years old)

However, some interviewees put forward other concerns. They think that health policy is meaningful and considering female health is difficult in practice.

"This is a good thing...but the gender perspective is difficult in practice." (H7, 25 years old)

"This is difficult... the anti-epidemic effort is still the priority, gender may be the next thing." (H2, 49 years old)

### **4.3 The Experience of the Volunteer Team**

#### **4.3.1 Motivation and Ideas to Join the Team**

This sudden pandemic made people feel panicked and helplessness. Doing something within their ability for society made volunteers relieved of their feelings of powerlessness. In February 2020, Yu Liang established a *Stand By Her* volunteer team on Weibo, appealing to the public to pay attention to the dilemmas of the front-line female medical staff and initiating a fundraiser to provide physiological hygiene products. Most interviewees mentioned that they felt very sad when they saw some front-line medical workers on social media asking for help because they were without sanitary napkins. Because of their empathy for the plight of these females, they joined the volunteer team. Among them, some female respondents were concerned about gender inequality issues, and they wanted to speak up to support front-line medical workers on social media.

"This is a natural connection between females... I want to do something for the epidemic." (V1, female)

"I am very anxious at home." (V7, female)

However, one of the volunteers joined because she did not trust the fundraising on social media and wanted to supervise the team.

"In the beginning, I joined the team to supervise the fundraising. I was worried that everyone's kindness would be misused on social media, but nothing I was worried about happened." (V6, female)

In addition, this volunteer team also included men, who wanted to contribute their personal strength to society during the pandemic.

"I didn't pay attention to gender at the time. I just felt that this particular plight of females that might be overlooked was relatively niche and was not noticed by everyone, but it was necessary and valuable. I joined...I simply wanted to help Wuhan and help females...I was not thinking about gender." (V09, male)

#### **4.3.2 Male Volunteers Joining the Team**

The female volunteers also expressed their appreciation for the male volunteers in the team.

"This is not a shameful activity... it is out of human empathy." (V10, female)

Some female interviewees believe that some male is paying attention to this activity, which shows that they have the empathy to female, and reflects the respect of male to female. The participation of men suggests that the environment is improving.

"By working with female to act for female, some gender issues will gradually become equal." (V2, female)

#### **4.3.3 The Practice of the Volunteer Team**

The reason why the *Stand By Her* volunteer team was able to achieve such a high degree of discussion on social media comes from three aspects of the volunteer team's actions. The following conclusions are drawn from the interview data. Firstly, there is a clear division of labour within the volunteer team. There are seven departments, including the fundraising, publicity, materials, logistics, emergency, information, and media group. For example, the fundraising group is responsible for publicising fundraising projects and monitoring financial operations. The propaganda group released cartoons about menstruation knowledge on social media, calling on people to face gender differences and eliminate female shame, which saw a high level of activity.

Second, the volunteer team used hashtags to spread virally, such as #StandByHer and #SeingFemaleLaborers. Through interactions with traditional media, celebrity, and feminist's Weibo accounts, they gained an extremely high number of forwarding and influence. By calling on the public to acknowledge the normal physiological needs of females, the efforts of female workers, and the need to consider gender health policy, the project has become very influential.

Third, the volunteer team publishes detailed funding announcements, messages of thanks and feedback from medical workers, and volunteer team experiences through social media platforms each day. The volunteer team raised 2.53 million yuan on

social media, Thus, in this way, volunteers in this organisation and people on Weibo are able to monitor the project, encouraging them to participate and support females.

#### **4.4 Female Solidarity**

##### **4.4.1 Definition and Core of Female Solidarity**

Female solidarity is not only an act of assistance among female, but also a conglomeration of female emotions. As for where the solidarity of women comes from, the interviewees put forward the following points:

"Helping female get through their plight...helping them is helping ourselves... We are a community of common destiny for all mankind" (V9, male)

"Through the epidemic, everyone may focus more on front-line female medical's efforts and difficulties to support them." (V7, female)

"It resonated with the female... We must unite to fight for female rights." (V10, female)

Some interviewees said that the core of female solidarity is empathy for the plight of the female.

"females will be more aware of the pain that females suffer." (V2, female)

"Although I cannot experience the pain of female, I have empathy and I want to contribute my personal strength for female solidarity." (V9, male)

Other interviewees also said that the core of female solidarity is the transmission of female power.

"We help front-line female medical workers, and front-line female medical workers help patients." (V8, female)

##### **4.4.2 The Establishment of Female Collective Identity and Trust**

The female identity and trust between people have slowly been established by volunteer teams through posts on social media and concrete actions. Firstly, volunteers refer to each other as "sisters" to shorten the distance between each other, public online users, and front-line female medical workers on social media platforms. The meaning of this name is constantly evolving, becoming a source of strength. The word 'sister' no longer represents an individual, but embodies the solidarity of community females. Most of the interviewees said that the use of the "sister is coming" tag on social media made people feel the strength of the community and of common destiny for females.

"In the beginning, the word "sister" was very kind, but through team actions, this word gave me strength." (V5, female)

"I think the word 'sister' does not need to involve gender distinctions in a team. It is powerful and symbolises not a single person, but a group of people." (V9, male)

Moreover, trust and community are established through interactions between volunteers.

Interviewee V3 (female) recalled that it was like a big family, solving problems together, everyone supported each other to make me love it

more... it lets us see that our efforts were truly received by front-line female medical workers. We are on social media and have gained a lot of attention and trust... such trust makes our collective identity more recognised."

The impact of the sense of community and trust among volunteers also extends to social media, allowing those who participated indirectly through fundraising and other support to feel the existence of collective identity. The volunteer team allows people on social media to follow the project through transparent project funding announcements each day. In addition, the volunteer team posts daily photos of physical donations on Weibo and the feedback and expressions of thanks from female medical workers in response, which enables the team to build trust with citizens. These, in turn, had positive effects on netizens' feedback to the volunteer team, deepening the connections within the team and those on social media in a positive and virtuous circle.

"Although across the Internet, our actions are public, and they have indeed helped front-line female medical workers... The trust and enthusiasm of our team spread to social media, and the people on Weibo responded with positive support. The positive message from social media made us feel that we are a community of destiny, more motivated, and helped us persevere with unity." (V9, male)

#### **4.4.3 The Dilemma of Female Solidarity**

However, female solidarity on social media has also encountered obstacles: pressure from government censorship and negative comments on social media. According to the interview, the organisation was mainly affected by negative comments and attacks from social media. According to the interview data, negative public opinions avert the volunteer team's energy to the challenge from the attackers on Weibo. These attackers deliberately provoke antagonism on social media, hindering the development of solidarity and stigmatising the group.

First, some attackers claimed on social media platforms that the organisation encouraged gender antagonism. Some interviewees believed that the movement naturally gave rise to a discussion of gender issues.

"Yu Liang herself is a feminist activism...it is normal to be attacked by patriarchal users." (V5, female)

"It's a natural process...maybe because females are in an unequal environment." (V9, male)

Some interviewees believed that this movement was forced to address gender issues because it gave rise to mainstream awareness on social media.

"Our request is simply to do something for front-line female medical workers. It was discussed on social media and raised as a gender issue... We never thought of provoking gender opposition." (V4, female)

In particular, some interviewees were very opposed to thinking of this movement as a gender issue.

"I don't support the separation of gender and feminism. I think this is a gender antagonism created by someone on social media who wants to

create political differentiation... I am very disgusted with those attackers."  
(V6, female)

Furthermore, some men also stigmatised female solidarity and the organisation. In the comments on *Stand By Her*'s Weibo account, most of them asked about donation methods and provided encouragement. However, some still left malicious attacks. The following are representative comments taken from the Weibo account of the *Stand By Her* volunteer team:

Why are females so dramatic, and why are male medical workers not doing so much? (Comment has been deleted, male, February 5, 2020)

Human lives are almost gone, and you actually care about the female crotch. (Posted by "Maybe I'm Your Dad", male, February 8, 2020)

Donate sanitary napkins that can only be used by females and deliberately so that men can't use it?? (Comment has been deleted, male, February 10, 2020)

The above remarks may lead uninformed netizens to attack the volunteer team and females as a whole. Some interviewees believed that it was because those attackers lacked empathy and the most basic knowledge of biology. Other interviewees believed that those malicious attackers opposed the influence of the volunteer team and wanted to fight for the mainstream voice.

"This movement has always been a hot topic for discussion at the time on Weibo...some male felt that our influence on social media was too great, and seemed to rob the public's attention, so they came to the account to attack us." (V5, female)

## 5. Discussion

### 5.1 The Successful Practice of Digital Female Activism on Social Media

Firstly, this research conforms to the concept of collective action theory, which emphasises the mobilisation of individual enthusiasm to achieve public interest (Bennett and Segerberg, 2012). This study found that there are three key factors for the success of digital feminist activism. The first key factor is that the organisation must have a well-structured framework and value contribution of individual members. This is the focal issue of digital activism, which follows the conclusions of previous researchers (Kavada, 2015; Karpf, 2014). A well-structured organisational framework can greatly save communication costs and time, and paying attention to the value of each member of the organisation can better mobilise their enthusiasm and resources.

Secondly, another key factor for success is that volunteer organisations must have common demands to mobilise the public's enthusiasm. When the team has common demands and motivations, it leads to strong action and cohesion within the team. The motivation for the volunteers to work together comes from their empathy for females and a sense of responsibility towards the community and a sense of a common destiny for all. Especially during COVID-19, the feeling of powerlessness and anxiety about the disease was becoming a driving force towards actions.

The third key factor is that the cohesion of the female on social media has created a positive space for activism. Although Jane (2016) pointed out that social media may provide a negative space for female solidarity, the successes of the *Stand By Her* volunteer team have shown that female solidarity can still have a positive influence on social media and gain attention. First, the power of using hashtags on social media was seen to be empowering women (Clark, 2016). The team established the #StandByHer and #SeeingFemaleWorkers' hashtags on social media. Through effective interaction with traditional media, celebrities, and feminists, these two hashtags have spread widely and sparked public discussion. Secondly, the team produced a popular science cartoon of menstruation so that more male and indeed female could understand it. This not only allowed the team to gain more attention but has also spread knowledge about menstruation. This calls on the public to face up to and understand gender differences and trigger normal discussions on menstrual issues.

Based on the mentioned above, this study found that there are three key factors for the successful implementation of digital female activism: establish a well-structured framework and a common goal to mobilise the empathy of the members and an appreciation for the contribution of the members; establish the cohesion of the female on social media to develop the female solidarity; the formation of a strong community to establishment of a new identity and trust for females. Based on these three key factors, social media gives feminism a platform for expression and can prolong the movement towards gender equality. Social media platforms also serve as a record for the development of digital female activism.

## **5.2 The Female Solidarity's Development on Social Media**

This study found that female solidarity is not only an act of mutual assistance among female, but also a manifestation of the feminist consciousness. First of all, the most important thing in female solidarity is an identity that the members agree with. In this movement, the new identity of “sisters” was constantly becoming clearer through the members’ long-term co-existence and battle with difficulties. "Sisters" became more than a simple name, it developed a deeper meaning. Each female is no longer a lonely individual, but a member of a greater community that provides emotional support and emphasises that every woman will be seen, understood, and respected. Even though this community is an abstract virtual group, it allowed females to help each other and pass on the power between them. In addition, this research also found that female solidarity emphasises that female no longer need to be ashamed of their physical characteristics, and that female must fight for their demands to be heard. Because, in essence, every female individual stands up to protect other females, which in turn is essential to protect themselves.

In addition, this study also found that the core of female solidarity includes cognitive solidarity, action solidarity and spiritual solidarity. Among them, cognitive solidarity means that each member of the volunteer team has the same goal, which is to protect the needs of front-line female medical workers. This could give members a stronger sense of purpose and internal motivation, making them more willing to cooperate and contribute to each other. Secondly, action solidarity emphasises that there should be no communication barriers among volunteer members, maintaining efficient communication and reaching consensus on actions. Mutual help in action could enable the volunteer team project to run efficiently. The third core is spiritual solidarity, which emphasises mutual recognition and trust among team members. It also emphasises enables team members to support each other emotionally in the face of difficulties. It also emphasises the need for positive feedback from outside sources to strengthen the team's sense of accomplishment and conviction. In this case, the team received positive feedback from front-line female health workers and social media, which gave the volunteers more motivation from spirituality to overcome when they encountered difficulties.

The female collective identity and trust were established through interactions within the organisation and through social media. During difficult times, trust between people is very fragile and hard to build, especially in the digital space (Mendes et al., 2018). However, as the project continued to advance through social media, they were able to develop close connections. In the process of implementing the project, they faced difficulties together and obtained positive results, enabling them to strengthen their trust in each other. This also enabled the team to perceive the positive effects of female solidarity and the presence of the female community is felt.

## **5.3 China's Gender Issues and Development Based on Social Media Platforms**

This study found that the *Stand By Her* organisation promotes gender issues and development in China through social media. The volunteer team had a flexible organisational action framework and a unified goal. This case also had a clear

appeal, which was to protect the needs of front-line female medical workers and pay attention to gender inequalities in the workplace. This is contrary to Zeng's (2020) view that digital feminism on Chinese social media is “scattered”.

There are two main points to follow in relation to Chinese gender issues and social media. The success of the *Stand By Her* volunteer team on social media has both inevitability and distinctiveness. Firstly, this study found that the inevitability of the success of the volunteer team lies in the fact that the project's clear demands for gender equality met the gendered' development needs on three levels. The first level is in line with the current policies of China in facing COVID-19. The volunteer team called for the need to pay more attention to the physiological needs of front-line female medical workers and valued their efforts. This demand is in line with the China's efforts to fight the pandemic. The second level is in line with the current direction of the development of gender issues in China. The volunteer team called on society to see the efforts of female workers and eliminate stigma against menstruation. This follows the issue of gender discrimination in the workplace, and the elimination of female shame. These two issues are important in the development of contemporary Chinese gender issues. Moreover, the third level is that the volunteer team's goal is consistent with the need for gender perspectives in global health governance. In global health governance, it is necessary to acknowledge and address the common physiological needs of female medical workers and their physical and psychological safety. Therefore, the volunteer team called on the government to add feminine hygiene products to its list of resources for major incident emergencies. The appeal of the volunteer team made the government pay more attention to the needs of female medical workers. The government has promoted the hard work of female medical workers on social media and provided more funds, materials, and manpower.

Second, about success of the *Stand By Her* volunteer team on social media has distinctiveness, this study found that the success of the volunteer team is reflected in two aspects. On the one hand, China is in a unique period COVID-19. People have a greater ability to empathise with the plight and pain of others than ever before, and have a more common experience of difficulties faced by the community. On the other hand, female-related issues have already been attracting attention on social media for the past two years (Zeng, 2020). On Chinese social media, we still face many of the same issues: if we don't emphasise the plight of females, it may be ignored by the public. However, emphasising the plight of females may cause some people to claim that feminists are deliberately spreading discord. However, over the past two years, the atmosphere in which people discuss gender issues on social media has been different from the conservative mainstream ideology of the #MeToo period (Kuo, 2018). More and more people pay attention to female needs and difficulties. In particular, the contributions of volunteer teams to female-related issues on social media have given females a greater voice.

In conclusion, although some attackers may still stigmatise female rights, there is also a positive attitude towards the development of female issues on Chinese social media. More and more people pay attention to female and speak to support the female group. In the future, it would be interesting to conduct more research to

understand if this is a general trend, and if female issues are to be treated differently more generally.

## **6. Conclusions**

### **6.1 Summary**

In this study, ethnographic methods were used to conduct in-depth interviews with front-line female medical workers and *Stand By Her* volunteer team members to understand the experiences of the team, and study how they gradually promoted female solidarity on social media to establish a strong community. This study found three key factors for the successful implementation of digital female activism: establish a well-structured framework and a common goal to mobilise the empathy of the members and an appreciation for the contribution of the members; establish the cohesion of the female on social media to develop the female solidarity; the formation of a strong community to establishment of a new identity and trust for females.

In addition, this research has identified the characteristics of female solidarity. The core of female solidarity includes cognitive solidarity, active solidarity, and spiritual solidarity. This study also found that female solidarity is not only an act of mutual assistance among women, but also a manifestation of feminist thought. The female collective identity and trust were established through interactions within the organisation and through social media. Each female is no longer a lonely individual, but a member of a greater community that provides emotional support and emphasises that every woman will be seen understood and respected. Even though this community is an abstract virtual group, it allows females to help each other and pass on the power between them.

Finally, the study also analysed the development of gender issues in China on social media. This study asserts that the success of digital female activism has its inevitability and distinctiveness. The inevitability of its success is reflected in the organisation's clear demands for gender equality, which meet the needs of society on three levels. The first is in line with the current policies of China when facing COVID-19; the second is in line with the current direction of gender issues in China; the third is in line with the need for gender equality in health policies. In addition, the distinctiveness of its success is reflected in two aspects, namely, China is in a unique period of fighting COVID-19 and the positive development of female-related issues on China's social media over the past two years. Although gender issues in China may still be stigmatised, this research also shows a positive and optimistic attitude towards the development of gender issues on social media in China.

### **6.2 Recommendation**

This study analyses the successes of Chinese female activism on Weibo and helps to understand the current developments of gender issues on Chinese social media. Future research could study the action framework of digital female activism more deeply. In addition, this research also pays attention primarily to female solidarity on Chinese social media. It is hoped that future research can conduct a more in-depth study of social media-based female solidarity in the West and compare it with the results of this research in China.

### 6.3 Limitations

The limitations of this research lie in the choice of its research methods. According to the book of Pink et al. (2016), an interviewee's diary can be used to restore or understand the interviewee's thoughts or feelings. However, because this activity has ended, the interviewee may not record in the form of a diary. Thus, interviewees may inevitably forget some details when interviewed.

In addition, although this research also used *Stand By Her*'s (2020) internal manual (unpublished) to study in more detail the experiences of *Stand By Her* volunteers as a supplement, this study only has a small sample size. Only 9% of all team volunteers and eight front-line female medical workers were interviewed.

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